

22

Access DB# 98151

SEARCH REQUEST FORM  
Scientific and Technical Information Center

Requester's Full Name: Anthony Shackman Examiner #: 76101 Date: 7-7-03  
Art Unit: 2676 Phone Number 30: 5-0833 Serial Number: 09-800 093  
Mail Box and Bldg/Room/Location: PLC 6A06 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc. if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Spot satellite photos

Microsoft TerraServer

IBM

Rhodes GRR Company -> Google

Refocus

no patent files

STAFF USE ONLY

Searcher: Samuel Reynolds  
Searcher Phone #: 306-0255  
Searcher Location: PLC 3C03  
Date Searcher Picked Up: 7-7-03  
Date Completed: 7-9-03  
Searcher Prep & Review Time: 90  
Clerical Prep Time: 90  
Online Time: 90

Type of Search

NA Sequence (#) \_\_\_\_\_  
AA Sequence (#) \_\_\_\_\_  
Structure (#) \_\_\_\_\_  
Bibliographic ☒ \_\_\_\_\_  
Litigation ☒ \_\_\_\_\_  
Fulltext \_\_\_\_\_  
Patent Family \_\_\_\_\_  
Other \_\_\_\_\_

Vendors and cost where applicable

STN \_\_\_\_\_  
Dialog ☒ \_\_\_\_\_  
Questel/Orbit \_\_\_\_\_  
Dr. Link \_\_\_\_\_  
Lexis/Nexis \_\_\_\_\_  
Sequence Systems \_\_\_\_\_  
WWW/Internet ☒ \_\_\_\_\_  
Other (specify) \_\_\_\_\_



# STIC Search Report

## EIC 2600

STIC Database Tracking Number: 98151

TO: Anthony Blackman  
Location: PK2 6A06  
Art Unit: 2676  
Monday, July 07, 2003

Case Serial Number: 09800093

From: Pamela Reynolds  
Location: EIC 2600  
PK2-3C03  
Phone: 306-0255

Pamela.Reynolds@uspto.gov

### Search Notes

Dear Anthony Blackman,

Please find attached the RE-FOCUSED search results for 09800093.

I searched for spot satellite data, Microsoft's Terraserver and IBM data and watermarking of images.

Very little information was retrieved for GRP Inc. – Rhoad's company.

I searched the standard Dialog files, IBM TDBs, and the internet.

Thank you.

Pamela Reynolds



File 256:SoftBase:Reviews,Companies&Prods. 82-2003/Jun  
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Set	Items	Description
S1	7	SPOT(3N)SATELLITE?
S2	1463	TERRAIN OR LAND OR LANDSCAPE OR TOPO? OR USGS OR US()GEOLOGICAL()SURVEY
S3	23856	IMAGE? OR PICTURE? OR GRAPHIC? OR PHOTO?? OR PHOTOGRAPH??
S4	37	PHOTOGRAMMETRY
S5	267	S2 AND MAPS
S6	547	(EACH OR INDIVIDUAL?)(3N)(LINK? OR WEB()PAGE? OR S3)
S7	116	(DIGIT? OR ELECTRONIC?)(3N)(WATERMARK? OR WATER()MARK? OR MARKER? OR MARKING? OR SYMBOL? OR STENCIL? OR PATTERN? OR FINGERPRINT? OR IDENTIFIER?)
S8	0	GRP()INCorp?
S9	6	MICROSOFT AND TERRASERVER
S10	25	S7 AND EMBED?
S11	0	S10 AND HEADER??
S12	3	STEGANOGRAPH? AND S3 AND (INTERNET OR WWW OR WORLD()WIDE()-WEB)
S13	0	S1 AND S7
S14	0	S5 AND S6 AND S7
S15	1	S5 AND S7

12/3,K/1

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00116215 DOCUMENT TYPE: Review

PRODUCT NAMES: MPEG 2 & 4 (832146); Digital Watermarking (840793)

TITLE: Digital Watermarking: From Concepts to Real-Time Video Applications  
AUTHOR: Busch, Christoph Funk, Wolfgang Wolthusen, Stephen  
SOURCE: IEEE Computer Graphics & Appl, v19 n1 p25(11) Jan/Feb 1999  
ISSN: 0272-1716  
HOMEPAGE: <http://computer.org/cga>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20010730

A number of digital watermarking techniques for real-time MPEG-2 video delivery over the **Internet** are discussed here, including the types of applications digital watermarking is good for and their inherent copyright considerations, compression schemes, and security problems. Based on the ancient technique of **steganography**, digital watermarking can be applied to the individual audio and video portions of an MPEG...

...based approach is best. Some watermarking algorithms can leave a visible 'mark' on still video **images** that are converted to moving **images**. Future copyright considerations must also be held for the coming MPEG-4 format.

12/3,K/2

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods..  
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00109709 DOCUMENT TYPE: Review

PRODUCT NAMES: Digital Watermarking (840793); Electronic Publishing (830458)

TITLE: Digital Watermarking: Intellectual Property Protection for the Int...  
AUTHOR: Hawkins, Donald T  
SOURCE: Online Magazine, v22 n4 p91(3) Jul/Aug 1998  
ISSN: 0146-5422  
HOMEPAGE: <http://www.onlineinc.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20010730

...make it attractive as a way to protect information products. Digital watermarking is part of **steganography**, the science of communicating in a hidden way. Digital watermarking uses naturally occurring variations of text and **images**, and cannot be seen by the user unless a special technique is used. Digital watermarks...

...manipulation that may occur. Some digital watermark software packages place an invisible watermark into an **image** file, and when the **image** is viewed with a Web browser, the viewer will be alerted to the **image**'s copyright status. There are some questions as to whether it is secure, and for...

DESCRIPTORS: Copyrights; Digital Rights Management; Electronic Publishing;  
**Internet Utilities**

12/3,K/3

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00105712 DOCUMENT TYPE: Review

PRODUCT NAMES: Adobe Photoshop (213756); PictureMarc (663948)

TITLE: Digital Watermarks: Who's Using Your Images On The Net?

AUTHOR: Eisenhart, Mary

SOURCE: MicroTimes, p98(8) Nov 3, 1997

HOME PAGE: <http://www.microtimes.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20010730

...PRODUCT NAMES: 213756); PictureMarc (

TITLE: Digital Watermarks: Who's Using Your Images On The Net?

Adobe Systems' Adobe Photoshop and **steganography** are highlighted in a discussion of Digimarc's **PictureMarc** 'digital watermarking' technology. Digimarc identifies the copyright holder, and based on the level of service ...

...provides various degrees of information as to how to reach the copyright holder for licensing. **PictureMarc** is bundled with Photoshop 4, CorelDRAW!, and other **graphics** applications. Larry Logan, Digimarc's director of creative marketing, says that most copyright infringements are ...

...can help eliminate copyright violations. He says that 'Playboy' employs Digimarc's technology on their **World Wide Web** sites, because they have over a million hits each day and can experience a significant amount of infringement and reproduction of **images**. The watermark is added to the **photo** in a digital format, not in its original file or **photo** format. When in digital format, Digimarc's tools can be used from 90 percent of the digital imaging/editing software products available. A broad-based adoption of **PictureMarc** has taken place, especially through Corel's and Micrografx's products. Users can subscribe to...

DESCRIPTORS: Artists; Copyrights; Digital Rights Management; Electronic Publishing; **Graphics**; **Graphics Tools**; **Image Processing**; **Internet Marketing**; Photoshop

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15/3,K/1

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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01117404            DOCUMENT TYPE:   Product

PRODUCT NAME:   Digital ChartKit 2002 Standard & Professional (117404)

Maptech Inc (551325)  
10 Industrial Way  
Amesbury, MA 01913   United States  
TELEPHONE:   (978) 792-1000

RECORD TYPE:   Directory

CONTACT:   Sales Department

REVISION DATE:   20021130

...S. and international nautical charts. Digital ChartKit 2002 includes NOAA charts, navigation photographs, aerial pictures, **USGS** coastal **topographic maps**, and current and tide information. It also provides users with marine facilities coast pilot and light lists. The Professional Edition is updated weekly with 'Notice to Mariners' reports. **Digital** ChartKit also includes **symbol** and abbreviation help features. Its Maptech/BSB 3.0 charts are compatible with most computer...  
?

9/3,K/1

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00142509

DOCUMENT TYPE: Review

PRODUCT NAMES: **MapMachine** (108235); **Nationalatlas.gov** (136131)

TITLE: **Cool Map Sites for Business and Pleasure: These services are...**

AUTHOR: O'Leary, Mick

SOURCE: Information Today, v10 n9 p13(3) Oct 2002

ISSN: 8755-6286

HOME PAGE: <http://www.infotoday.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20030327

Nationalatlas.gov, **TerraServer**, and MapMachine are map sites that are useful for cartography experts and casual users. Nationalatlas...

...and meteorology, demographic and socioeconomic data, streets and political units, and topography and geological features. **TerraServer** provides deeply granular aerial photographic and topographic maps of the U.S., including Alaska, Hawaii, and Puerto Rico. Mapping was done by USGS, but **TerraServer** is a **Microsoft** application used as a demonstration project for **Microsoft**'s software. The aerial photographic map wonderfully blends photos and computer-enabled cartography, and search...

9/3,K/2

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
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00137785

DOCUMENT TYPE: Review

PRODUCT NAMES: **Geography** (849324); **Content Providers** (830207)

TITLE: **Geography Online: No place on Earth is unreachable when you click...**

AUTHOR: Noack, David

SOURCE: Link-Up, v19 n2 p21(1) Mar/Apr 2002

ISSN: 0734-988X

HOME PAGE: <http://www.infotoday.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20020630

...public access to a large number of maps and aerial photos of the U.S. **Microsoft** runs **TerraServer**, which runs on **Microsoft** SQL Server 2000, as a research project for the development of bleeding edge database technology...

9/3,K/3

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00134212 DOCUMENT TYPE: Review

PRODUCT NAMES: Microsoft SQL Server (259748)

TITLE: Feds Build SANs to Handle Increasing User Demands

AUTHOR: Mearian, Lucas

SOURCE: Computerworld, v35 n40 p17(1) Oct 1, 2001

ISSN: 0010-4841

HOME PAGE: <http://www.computerworld.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20020819

PRODUCT NAMES: Microsoft SQL Server...

**TerraServer**, which uses three **Microsoft** SQL Server databases, is the storage area network (SAN) behind the Web site of the...

...on TV or in print. In addition, a new Web site was added to the **TerraServer** to provide federal agencies with sole use of data for presentation creation. The Web site...

...the U.S. Department of Agriculture for the management of land and other natural resources. **TerraServer** was developed and operated by a joint venture between the U.S. federal government and multiple IT vendors, including **Microsoft**, Compaq Computer, and Advanced Digital Information. Four ProLiant 8500 servers and a Compaq Enterprise Storage...

...16-port SilkWorm 2800 switches from Brocade Communications are used, in addition to the three **Microsoft** SQL Server databases. Another user of SAN technology is the Federal Deposit Insurance (FDIC) agency...

COMPANY NAME: Microsoft Corp...

9/3,K/4

DIALOG(R) File 256:SoftBase:Reviews,Companies&Prods.  
(c)2003 Info.Sources Inc. All rts. reserv.

00123159 DOCUMENT TYPE: Review

PRODUCT NAMES: GIS (830278); Data Warehouses (834289)

TITLE: Data Warehouse to Data Powerhouse: The Geospatial Information...

AUTHOR: Black, James D

SOURCE: Business Geographics, v8 n2 p26(4) Feb 2000

ISSN: 1067-456X

HOME PAGE: <http://www.bg.geoplace.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20030330



...and cellular phones. Portable devices of the future will access both applications and data, since **Microsoft**, Oracle, and Sun Microsystems all plan to offer software as a service via the Internet...

...the 'frequently used' and 'infrequently used' categories. Various data 'powerhouses' are briefly described, including MrSID, **TerraServer**, and TerraSoar.

9/3,K/5

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00112083 DOCUMENT TYPE: Review

PRODUCT NAMES: **Microsoft SQL Server 7 Beta 3** (259748); **Sphinx** (641766)

TITLE: **SQL Server 7: Ready for the Enterprise**

AUTHOR: Jennings, Roger

SOURCE: Visual Basic Programmer's Journal, v8 n11 p30(7) Fall 1998SP

ISSN: 1066-5978

HOME PAGE: <http://www.vbpj.com>

RECORD TYPE: Review

REVIEW TYPE: Product Analysis

GRADE: Product Analysis, No Rating

REVISION DATE: 20000830

PRODUCT NAMES: **Microsoft SQL Server 7 Beta 3...**

**Microsoft**'s **Microsoft SQL Server 7 beta 3**, formerly called **Sphinx**, includes **Microsoft Decision Support Services 1.0**. The latest code added seems to be full-featured and...

...Data Objects (ADO) 2.0, and almost ready to ship. **SQL Server 7** could be **Microsoft**'s most important new product of 1998, and MSDSS should create inestimable numbers of data...

...**SQL Server** has generally been relegated by analysts as a department level product only. Therefore, **Microsoft** is attempting to prove its scalability to multiterabyte (TB) enterprise databases. Testers are satisfied, after working with the **TerraServer** site, that **SQL Server 7 Enterprise Edition** is suitably scalable for homogeneous decision support environments...

...augment the nested loop joins of **SQL Server 6.5 Enterprise Manager** is replaced with **Microsoft Management Console 1.1**, a snap-in that provides a full-text search option using...

COMPANY NAME: **Microsoft Corp...**

9/3,K/6

DIALOG(R)File 256:SoftBase:Reviews,Companies&Prods.  
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00111595 DOCUMENT TYPE: Review

PRODUCT NAMES: Microsoft SQL Server (259748)

TITLE: The World At Your Feet: Microsoft 's TerraServer  
AUTHOR: Frezza, Bill  
SOURCE: InternetWeek, v737 p85(1) Oct 19, 1998  
ISSN: 0746-8121  
HOMEPAGE: <http://www.internetwk.com>

RECORD TYPE: Review  
REVIEW TYPE: Product Analysis  
GRADE: Product Analysis, No Rating

REVISION DATE: 20030330

PRODUCT NAMES: Microsoft SQL Server...

TITLE: The World At Your Feet: Microsoft 's TerraServer

Microsoft 's TerraServer service is an impressive collection of high-resolution digital images blended into a continuous mosaic that presents an exhaustive visual database of the world's surface. TerraServer is promoted by Microsoft as the world's largest online database, although this claim is disputed by IBM. TerraServer provides a mix of declassified Russian spy satellite images and USGS high-altitude aerial photographs...

...along with selected European locations and some locations from the Middle East and Pacific Rim. Microsoft plans to continue adding more images as they become available. Microsoft plans to use TerraServer to showcase the power of its SQL 7.0 database and other technologies that are ...

COMPANY NAME: Microsoft Corp...  
?

File 2:INSPEC 1969-2003/Jun W5  
(c) 2003 Institution of Electrical Engineers  
File 6:NTIS 1964-2003/Jun W5  
(c) 2003 NTIS, Intl Cpyrght All Rights Res  
File 8:Ei Compendex(R) 1970-2003/Jun W5  
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File 34:SciSearch(R) Cited Ref Sci 1990-2003/Jun W5  
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File 35:Dissertation Abs Online 1861-2003/Jun  
(c) 2003 ProQuest Info&Learning  
File 65:Inside Conferences 1993-2003/Jun W5  
(c) 2003 BLDSC all rts. reserv.  
File 94:JICST-EPlus 1985-2003/Jun W4  
(c)2003 Japan Science and Tech Corp(JST)  
File 95:TEME-Technology & Management 1989-2003/Jun W3  
(c) 2003 FIZ TECHNIK  
File 99:Wilson Appl. Sci & Tech Abs 1983-2003/May  
(c) 2003 The HW Wilson Co.  
File 144:Pascal 1973-2003/Jun W4  
(c) 2003 INIST/CNRS  
File 233:Internet & Personal Comp. Abs. 1981-2003/May  
(c) 2003 Info. Today Inc.  
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec  
(c) 1998 Inst for Sci Info  
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13  
(c) 2002 The Gale Group  
File 603:Newspaper Abstracts 1984-1988  
(c)2001 ProQuest Info&Learning  
File 483:Newspaper Abs Daily 1986-2003/Jul 03  
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File 248:PIRA 1975-2003/Jun W5  
(c) 2003 Pira International  
File 58:GeoArchive 1974-2003/Apr  
(c) 2003 Geosystems  
File 89:GeoRef 1785-2003/Jul B1  
(c) 2003 American Geological Institute  
File 292:GEOBASE(TM) 1980-2003/Jun  
(c) 2003 Elsevier Science Ltd.

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Set	Items	Description
S1	3893	SPOT(3N)SATELLITE?
S2	1499881	TERRAIN OR LAND OR LANDSCAPE OR TOPO? OR USGS OR US()GEOLOGICAL()SURVEY
S3	3764907	IMAGE? OR PICTURE? OR GRAPHIC? OR PHOTO?? OR PHOTOGRAPH??
S4	30056	PHOTOGRAMMETRY (January 1980)
S5	72481	S2 AND MAPS
S6	56453	(EACH OR INDIVIDUAL?)(3N)(LINK? OR WEB()PAGE? OR S3)
S7	22960	(DIGIT? OR ELECTRONIC?)(3N)(WATERMARK? OR WATER()MARK? OR MARKER? OR MARKING? OR SYMBOL? OR STENCIL? OR PATTERN? OR FINGERPRINT? OR IDENTIFIER?)
S8	0	GRP()INCPORP?
S9	17	MICROSOFT AND TERRASERVER
S10	2384	S7 AND EMBED?
S11	9	S10 AND HEADER??
S12	6	RD S11 (unique items)
S13	0	S9 AND S7
S14	15	RD S9 (unique items)
S15	28	TERRASERVER
S16	11	S15 NOT S9
S17	0	S7 AND S16

S18	11	RD S16 (unique items)
S19	138962	(S1 OR S2) AND S3
S20	437	S19 AND S7
S21	0	S20 AND (EACH OR INDIVIDUAL?) (3N) (LINK? OR WEB() PAGE?)
S22	9	S20 AND (WEB() PAGE? OR LINK? OR HEADER??)
S23	9	S22 NOT (S9 OR S14 OR S15)
S24	8	RD S23 (unique items)
S25	0	S10 AND S3 AND WEB() PAGE??
S26	2	S10 AND HTML
S27	2	RD S26 (unique items)
S28	54	STEGANOGRAPH? AND S3 AND (INTERNET OR WWW OR WORLD() WIDE() - WEB)
S29	0	S28 AND S5
S30	1	S28 AND S2
S31	108	S5 AND S7
S32	2	S31 AND (INTERNET OR HEADER? OR LINKS)
S33	2	RD S32 (unique items)
S34	105	S31 NOT (S32 OR S26 OR S30 OR S22 OR S16 OR S9)
S35	57	S34 AND S3
S36	8	S35 AND (INDIVIDUAL OR SPECIFIC OR EACH OR EVERY OR PORTIO- N? OR PARTS OR SECTIONS OR PARTITION? OR SECTOR?)
S37	8	RD S36 (unique items)
S38	21	S10 AND S19
S39	17	S38 NOT (S31 OR S32 OR S26 OR S30 OR S22 OR S16 OR S9)
S40	9	RD S39 (unique items)

12/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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7547075 INSPEC Abstract Number: B2003-04-6135C-107, C2003-04-5260D-091

**Title: Application of digital watermarking to MPEG-4 bitstream error detection**

Author(s): Okada, H.; Hak-Sop Song; Fujita, G.; Onoe, T.; Shirakawa, I.

Author Affiliation: Dept. Inf. Syst. Eng., Osaka Univ., Japan

Journal: Journal of the Institute of Image Electronics Engineers of Japan  
vol.31, no.5 p.900-8

Publisher: Gazo Denshi Gakkai,

Publication Date: Sept. 2002 Country of Publication: Japan

ISSN: 0285-9831

SICI: 0285-9831(200209)31:5L.900:ADWM;1-A

Material Identity Number: P675-2002-006

Language: Japanese

Subfile: B C

Copyright 2003, IEE

**Title: Application of digital watermarking to MPEG-4 bitstream error detection**

Abstract: We study an approach that applied the **digital watermarking** for the MPEG-4 bitstream error detection enhancement in video coding. There are some conventional...

... the decoding process and the method based on the DCT (discrete cosine transform) coefficient features **embedding** in the DCT block. However there is not a conclusive one yet. This paper presents...

... practical than the conventional one. In the encoder, some features are extracted from the macroblock **headers**, motion vectors, and DCT coefficients, which are **embedded** in the quantized DCT coefficients as the **digital watermarks**. The decoder performs accurate error detection through the watermark extraction. Simulation results demonstrate that the error detection ability of the proposed approach can be significantly improved, and that **digital watermark embedding** incurs little degradation to the picture quality.

Identifiers: **digital watermarking**; ...

...macroblock **headers**; ...

... **embedding**;

12/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

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7118948 INSPEC Abstract Number: B2002-01-6135C-080, C2002-01-5260B-220

**Title: A class of authentication digital watermarks for secure multimedia communication**

Author(s): Liehua Me; Arce, G.R.

Author Affiliation: Dept. of Electr. Eng., Delaware Univ., Newark, DE, USA

Journal: IEEE Transactions on Image Processing vol.10, no.11 p. 1754-64

Publisher: IEEE,

Publication Date: Nov. 2001 Country of Publication: USA

CODEN: IIPRE4 ISSN: 1057-7149

SICI: 1057-7149(200111)10:11L.1754:CADW;1-D

Material Identity Number: 0939-2001-011  
U.S. Copyright Clearance Center Code: 1057-7149/01/\$10.00  
Language: English  
Subfile: B C  
Copyright 2001, IEE

**Title: A class of authentication digital watermarks for secure multimedia communication**

...Abstract: lossy channels is introduced. Rather than attaching the signature's bit-string as a file- **header** , it is invisibly etched into the image using a new watermarking algorithm. The watermark is...

... the wavelet decomposition coefficients are modified according to this binary sequence. The signature is also **embedded** and tested within the SPIHT compression algorithm. The information capacity is studied and the experimental...

Identifiers: authentication **digital watermarks** ;

**12/3,K/3 (Item 1 from file: 8)**  
DIALOG(R)File 8:Ei Compendex(R)  
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05983720 E.I. No: EIP01056814768

**Title: A class of authentication digital watermarks for secure multimedia communication**

Author: Xie, L.; Arce, G.R.

Corporate Source: Dept. of Elec. and Computer Eng. University of Delaware, Newark, DE 19716, United States

Source: IEEE Transactions on Image Processing v 10 n 11 November 2001. p 1754-1764

Publication Year: 2001

CODEN: IIPRE4 ISSN: 1057-7149

Language: English

**Title: A class of authentication digital watermarks for secure multimedia communication**

...Abstract: lossy channels is introduced. Rather than attaching the signature's bit-string as a file- **header** , it is invisibly etched into the image using a new watermarking algorithm. The watermark is...

...the wavelet decomposition coefficients are modified according to this binary sequence. The signature is also **embedded** and tested within the SPIHT compression algorithm. The information capacity is studied and the experimental...

Descriptors: **Digital watermarking** ; Image analysis; Multimedia systems ; Image compression; Robustness (control systems); Algorithms

Identifiers: **Digital watermarks**

**12/3,K/4 (Item 2 from file: 8)**  
DIALOG(R)File 8:Ei Compendex(R)  
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05952680 E.I. No: EIP01496756547

**Title: Image retrieval based on data hiding**

Author: Chang, I.S.; Park, R.-H.

Corporate Source: Dept. of EE Sogang Univ., Seoul 100-611, South Korea

Conference Title: Security and Watermarking of Multimedia Contents III

Conference Location: San Jose, CA, United States Conference Date:

20010122-20010125

E.I. Conference No.: 58754

Source: Proceedings of SPIE - The International Society for Optical Engineering v 4314 2001. p 321-328

Publication Year: 2001

CODEN: PSISDG ISSN: 0277-786X

Language: English

...Abstract: information related to it. By invisible modification of images, the images are retrieved without any **headers** or separate files linked to them. This paper presents the robust data hiding method by...

...practical image retrieval system. Experiments with various test image sets show that the proposed data **embedding** algorithm is robust to joint photographic experts group (JPEG) compression. 10 Refs.

Descriptors: Image retrieval; **Digital watermarking**; Internet; Database systems; Real time systems; Vector quantization; Spurious signal noise; Feature extraction; Algorithms; Computer...

12/3,K/5 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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05169518 JICST ACCESSION NUMBER: 02A0434115 FILE SEGMENT: JICST-E

**Error Detection Based on Digital Watermarking for MPEG-4 Video Coding.**

SHIITEV A-E (1); LU F (1); SONG H-S (1); FUJITA GEN (1); SHIRAKAWA ISAO (1); OKADA HIROYUKI (2); ONOE TAKAO (2)

(1) Osaka Univ., Graduate School of Engineering, JPN; (2) Kyoto Univ., Graduate School of Informatics, JPN

Denshi Joho Tsushin Gakkai Gijutsu Kenkyu Hokoku(IEIC Technical Report (Institute of Electronics, Information and Communication Engineers),

2002, VOL.101,NO.696(ICD2001 221-234), PAGE.45-50, FIG.3, TBL.6, REF.9

JOURNAL NUMBER: S0532BBG

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:621.397.3

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

**Error Detection Based on Digital Watermarking for MPEG-4 Video Coding.**

...ABSTRACT: for the error detection dedicated to the MPEG-4 video coding by means of the **digital watermarking**. Specifically, in the process of encoding the proposed scheme abstracts the macroblock features of **headers**, motion vectors, and DCT coefficients, which are **embedded** into the quantized DCT coefficients as the **digital watermarks**, while in the process of decoding it performs the accurate error detection through the watermark...

12/3,K/6 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2003 INIST/CNRS. All rts. reserv.

15422525 PASCAL No.: 02-0114125

**A class of authentication digital watermarks for secure multimedia communication**

LIEHUA XIE; ARCE Gonzalo R

Department of Electrical and Computer Engineering, University of Delaware, Newark, DE 19716, United States

Journal: IEEE transactions on image processing, 2001, 10 (11) 1754-1764  
Language: English

Copyright (c) 2002 INIST-CNRS. All rights reserved.

**A class of authentication digital watermarks for secure multimedia communication**

... lossy channels is introduced. Rather than attaching the signature's bit-string as a file- **header** , it is invisibly etched into the image using a new watermarking algorithm. The watermark is...

... the wavelet decomposition coefficients are modified according to this binary sequence. The signature is also **embedded** and tested within the SPIHT compression algorithm. The information capacity is studied and the experimental...

English Descriptors: Image processing; **Digital** processing; **Watermarking** ; Authentication; **Digital** signature; Wavelet transformation; Multimedia communication; Image compression; Experimental result; Performance evaluation

?



14/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6637053 INSPEC Abstract Number: C2000-08-6160S-015

**Title:** Microsoft TerraServer : a spatial data warehouse

Author(s): Barclay, T.; Gray, J.; Slutz, D.

Author Affiliation: Microsoft Res., San Francisco, CA, USA

Journal: SIGMOD Record Conference Title: SIGMOD Rec. (USA) vol.29,  
no.2 p.307-18

Publisher: ACM,

Publication Date: June 2000 Country of Publication: USA

CODEN: SRECD8 ISSN: 0163-5808

SICI: 0163-5808(200006)29:2L.307:MTSD;1-E

Material Identity Number: A660-2000-002

Conference Title: 2000 ACM SIGMOD. International Conference on Management  
of Data

Conference Sponsor: ACM

Conference Date: 16-18 May 2000 Conference Location: Dallas, TX, USA

Language: English

Subfile: C

Copyright 2000, IEE

**Title:** Microsoft TerraServer : a spatial data warehouse

Abstract: **Microsoft** (R) **TerraServer** stores aerial, satellite, and  
topographic images of the Earth in a SQL database available via...

... a SQL data warehouse. All meta-data and imagery are stored in the SQL  
database. **TerraServer** demonstrates that general-purpose relational  
database technology can manage large scale image repositories, and shows...

Identifiers: **Microsoft TerraServer** ;

14/3,K/2 (Item 1 from file: 8)

DIALOG(R)File 8:Ei Compendex(R)

(c) 2003 Elsevier Eng. Info. Inc. All rts. reserv.

05122048 E.I. No: EIP98094385529

**Title:** Remote sensing/satellite imaging market watch: Why, here comes  
microsoft

Author: Nelson, Lee J.

Source: Advanced Imaging v 13 n 8 Aug 1998. p 16-17, 67

Publication Year: 1998

CODEN: ADIMEZ ISSN: 1042-0711

Language: English

**Title:** Remote sensing/satellite imaging market watch: Why, here comes  
microsoft

Abstract: **TerraServer** is a novel breed of business alliance for  
net-based image marketing which evolved under the umbrella of **Microsoft** .  
Two technical points are key in distinguishing **TerraServer** from other  
digital image data sources: any imagery contained in **TerraServer** 's  
archive is for sale and can be downloaded via the Internet; and  
**TerraServer** puts the world's single largest collection of two-meter  
resolution space-borne imagery into...

14/3,K/3 (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci

(c) 2003 Inst for Sci Info. All rts. reserv.

07515200 Genuine Article#: 175NK No. References: 0  
**Title:** Microsoft SQL Server 7.0, Compaq AlphaServers power TerraServer ,  
world's largest Web database  
**Author(s):** ANONYMOUS  
**Journal:** OIL & GAS JOURNAL, 1999, S (SPR), P23-23  
**ISSN:** 0030-1388 **Publication date:** 19990300  
**Publisher:** PENNWELL PUBL CO ENERGY GROUP, 1421 S SHERIDAN RD PO BOX 1260,  
TULSA, OK 74101  
**Language:** English **Document Type:** NEWS ITEM

**Title:** Microsoft SQL Server 7.0, Compaq AlphaServers power TerraServer ,  
world's largest Web database

**14/3,K/4 (Item 1 from file: 99)**  
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
(c) 2003 The HW Wilson Co. All rts. reserv.

2203579 H.W. WILSON RECORD NUMBER: BAST00069829  
**Software tackles terabytes of maps**  
Design News v. 55 [i.e. 56] no20 (Oct. 16 2000) p. 39-40  
DOCUMENT TYPE: Feature Article ISSN: 0011-9407

**ABSTRACT:** The approach used by TopoZone < <http://www.topozone.com> > and  
**TerraServer** < [http:// terraserver . microsoft .com/](http://terraserver.microsoft.com/) > in sending large  
files over ordinary Internet access lines is discussed. Both web sites are  
involved in posting searchable, high-resolution, topographic maps. At  
**TerraServer** , aerial, topographic, and satellite images are subdivided into  
200 [times] 200 pixel tiles, which are...

**14/3,K/5 (Item 2 from file: 99)**  
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
(c) 2003 The HW Wilson Co. All rts. reserv.

2032539 H.W. WILSON RECORD NUMBER: BAST98065480  
**USGS unveils TerraServer , expands business partners**  
GIS World v. 11 no9 (Sept. 1998) p. 24  
DOCUMENT TYPE: Feature Article ISSN: 0897-5507

**USGS unveils TerraServer , expands business partners**

**ABSTRACT:** **TerraServer** is a World Wide Web-based database containing over  
4 terabytes of compressed aerial and satellite images that was launched by  
the U.S. Geological Survey, Reston, Virginia; **Microsoft** , Redmond,  
Washington; and Aerial Images, Raleigh, North Carolina. Users can download  
and view geographic images of near 1-meter resolutions using **TerraServer** .  
Digital files and high quality prints can be ordered from the **TerraServer**  
web site at [http://www. terraserver . microsoft .com/](http://www.terraserver.microsoft.com/) ....

**14/3,K/6 (Item 3 from file: 99)**  
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs  
(c) 2003 The HW Wilson Co. All rts. reserv.

1824386 H.W. WILSON RECORD NUMBER: BAST99019628  
**Spy satellite photography on the Internet**  
Siuru, Bill;  
Electronics Now v. 70 no4 (Apr. '99) p. 48-50

DOCUMENT TYPE: Feature Article ISSN: 1067-9294

...ABSTRACT: to market declassified satellite photographs from Russian mapping satellites. The images can be viewed on **Microsoft** 's **TerraServer** Web site ( <http://www.terraserver.com> ), the world's largest WindowsNT database on the Web.

14/3,K/7 (Item 1 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
(c) 2003 Info. Today Inc. All rts. reserv.

00672082 02IT10-007

**Cool map sites for business and pleasure -- These services are useful for both cartography experts and casual users**

O'Leary, Mick

Information Today , October 1, 2002 , v19 n9 p13-15, 3 Page(s)

ISSN: 8755-6286

Company Name: U.S. Geological Survey; **Microsoft** ; National Geographic Society

URL: [nationalatlas.gov](http://nationalatlas.gov) [terraserver.microsoft.com](http://terraserver.microsoft.com) <http://www.nationalgeographic.com>

Company Name: U.S. Geological Survey; **Microsoft** ; National Geographic Society

... demographic and socioeconomic data; streets and political units; and topography and geological features. Reports that **TerraServer** from **Microsoft** has highly detailed aerial photographic and topographic images. Adds th MapMachine is a part of...

Identifiers: U.S. Geological Survey; **Microsoft** ; National Geographic Society

14/3,K/8 (Item 2 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
(c) 2003 Info. Today Inc. All rts. reserv.

00645289 01NC10-007

**A SAN helps TerraServer cover new ground**

Higgins, Kelly Jackson

Network Computing , October 1, 2001 , v12 n20 p63-65, 3 Page(s)

ISSN: 1046-4468

Company Name: **Microsoft**

**A SAN helps TerraServer cover new ground**

Company Name: **Microsoft**

Talks about the storage area network (SAN) in the **Microsoft** Corp. **TerraServer** data center. Reports that space was getting tight in the data center: the server that housed the **TerraServer** SQL database had grown 20 feet long with all its upgrades, allowing no room to...

... was running out of internal headroom to handle its massive topological and imagery files. Says **Microsoft** replaced the fat server with clustered Windows 2000 machines and swapped its direct-attached storage...

... to grow by adding another server to the configuration while it is live. Mentions that **TerraServer** has three database servers plus a hot standby. Includes two sidebars and a diagram. (MEM)

Identifiers: **Microsoft**

14/3,K/9 (Item 3 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
(c) 2003 Info. Today Inc. All rts. reserv.

00543764 99TJ08-003

**Satellite technologies in the classroom**

Portz, Stephen M

T.H.E. Journal , August 1, 1999 , v27 n1 p56-58, 2 Page(s)

ISSN: 0192-592X

... Adds that one source of high resolution images which bring geography to life is the **Microsoft Terraserver** Internet site. Contends that satellite communications have the potential to extend the limits of classroom...

14/3,K/10 (Item 1 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

06134913 SUPPLIER NUMBER: 59617915

**You must remember this: If you don't, your watch will**

Maney, Kevin

USA Today, p B.3

Sep 6, 2000

ISSN: 0734-7456 NEWSPAPER CODE: USA

DOCUMENT TYPE: Commentary; Newspaper article

LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: storage in increasingly small spaces. It's not just science fiction. Rick Rashid, head of **Microsoft** Research, cites a very real, hands-on example. In 1998, **Microsoft** launched its experimental and costly **TerraServer** project ([www. terraserver .com](http://www.terraserver.com)), which put detailed satellite images of every spot on Earth on the Web. It...

14/3,K/11 (Item 2 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05340258

**Spy's-eye view of Atlanta**

Toner, Mike

Atlanta Journal Constitution, Sec A, p 8, col 1

Dec 12, 1998

NEWSPAPER CODE: ATCJ

DOCUMENT TYPE: News; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Medium (6-18 col inches)

...ABSTRACT: U.S. military bases. All it takes is the click of a mouse. Starting Tuesday, **Microsoft** 's **TerraServer** --- an online database of satellite imagery whose goal is to publicly archive images of every...

COMPANY INFORMATION:

... **Microsoft** Corp

14/3,K/12 (Item 3 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05231664

**Spying on New Orleans Satellite Photos on Web Show City from New  
Perspective**

Persica, Dennis

Times-Picayune, Sec E, p 1, col 2

Sep 17, 1998

ISSN: 1055-3053                      NEWSPAPER CODE: NO

DOCUMENT TYPE: Feature; Newspaper

LANGUAGE: English                      RECORD TYPE: ABSTRACT

LENGTH: Long (18+ col inches)

ABSTRACT: After visiting **Microsoft** 's **TerraServer** Internet site -- where satellite photos of New Orleans finally were posted last week -- I realized just how glad I am the Cold War is over. The **TerraServer** site features satellite photos of places all over the world. In the typical point-and...

...from the level of, say, a low-flying plane or a high-flying helicopter. The **TerraServer** site -- hosted by **Microsoft** in cooperation with other companies and Russian and U.S. government agencies -- has been up...

14/3,K/13                      (Item 4 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05110387

**Huge Microsoft Photo File Is Part of a Bigger Picture**

Richtel, Matt

New York Times, Sec G, p 3, col 2

Jun 25, 1998

ISSN: 0362-4331                      NEWSPAPER CODE: NY

DOCUMENT TYPE: News; Newspaper

LANGUAGE: English                      RECORD TYPE: ABSTRACT

LENGTH: Medium (6-18 col inches)

**Huge Microsoft Photo File Is Part of a Bigger Picture**

...ABSTRACT: ask the Government for a satellite photo; just get on the Web and ask the **Microsoft** Corporation, which unveiled an on-line database this week granting access to satellite and aerial pictures of nearly half of the United States and some foreign sites. While **Microsoft** says that its database (www. **terraserver** . **microsoft** . com), called Terra Server, is the largest database available on line, there appears to be...

...creation of one whopper of a digital scrapbook, it also says something very big about **Microsoft** 's effort to enter the database business, using as an opener a venture that can capture the public imagination. **Microsoft** 's strategy is to use Terra Server to prove that its software and operating system...

**COMPANY INFORMATION:**

**Microsoft** Corp

14/3,K/14                      (Item 5 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

05109184

**A Closer Look: I Spy**

Wall Street Journal, Sec B, p 6, col 2

Jul 9, 1998

ISSN: 0099-9660 NEWSPAPER CODE: WSJ

DOCUMENT TYPE: News; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Short (0-6 col inches)

ABSTRACT: To share in the celestial perspective, visit **Microsoft** Corp.'s new **TerraServer** site ([http:// terraserver . microsoft .com](http://terraserver.microsoft.com)).

**TerraServer** is a gigantic database of aerial and satellite photos. By typing in the name of...

COMPANY INFORMATION:

**Microsoft** Corp

**14/3,K/15** (Item 6 from file: 483)

DIALOG(R)File 483:Newspaper Abs Daily

(c) 2003 ProQuest Info&Learning. All rts. reserv.

05103188

**Microsoft to give world view on Web**

Maney, Kevin

USA TODAY, Sec B, p 1, col 6

Jun 22, 1998

ISSN: 0734-7456 NEWSPAPER CODE: US

DOCUMENT TYPE: News; Newspaper

LANGUAGE: English RECORD TYPE: ABSTRACT

LENGTH: Medium (6-18 col inches)

**Microsoft to give world view on Web**

ABSTRACT: **Microsoft** is about to put satellite images of your house -- and China's Great Wall and...

...other spot on earth -- on the Internet. The Web site will be announced Wednesday. Called **TerraServer**, it contains satellite images from the U.S. Geological Survey and the Russian Space Agency...

COMPANY INFORMATION:

**Microsoft** Corp

?

18/3,K/1 (Item 1 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
(c) 2003 Info. Today Inc. All rts. reserv.

00666272 02XP07-017

**EarthViewer 3D -- What in the world...?**  
Stevenson, Katherine  
Maximum PC , July 1, 2002 , v7 n7 p76, 1 Page(s)  
ISSN: 1088-5439  
Company Name: Keyhole  
URL: <http://www.earthviewer.com>  
Product Name: EarthViewer 3D Professional

...favorable review of EarthViewer 3D Professional (\$600), software from Keyhole Inc. Explains that similar to **Terraserver** .com, it uses an online connection to feed satellite images from around the world but unlike **Terraserver** images, the EarthViewer images are part of an organic whole. Cites the fact that it...

18/3,K/2 (Item 2 from file: 233)  
DIALOG(R)File 233:Internet & Personal Comp. Abs.  
(c) 2003 Info. Today Inc. All rts. reserv.

00658444 02LK03-017

**Geography online -- No place on Earth is unreachable when you click on these Web sites**  
Noack, David  
Link-Up , March 1, 2002 , v19 n2 p21, 1 Page(s)  
ISSN: 0739-988X

... map, which features political and physical maps, flags, and statistics from Andorra to Zimbabwe; and **terraserver** .homeadvisor.msn.com, which is billed as one of the world's largest online databases...

18/3,K/3 (Item 1 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

07201535 SUPPLIER NUMBER: 306079111  
**Several I-75, I-85 lanes to be closed for construction**  
IPPOLITO, MILO  
Atlanta Journal - Constitution, p H.2  
Mar 15, 2003  
NEWSPAPER CODE: ALJC  
DOCUMENT TYPE: News; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: return to I-85 or continue to Ga. 400. Sources: Georgia Department of Transportation, USGS, **terraserver** .homeadvisor.msn.com CHUCK BLEVINS / Staff

18/3,K/4 (Item 2 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

07194648 SUPPLIER NUMBER: 303414921  
**Smoothing out I-75 will be a long road, DOT warns**

HAIRSTON, JULIE B  
Atlanta Journal - Constitution, p G.1  
Mar 8, 2003  
NEWSPAPER CODE: ALJC  
DOCUMENT TYPE: News; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: will be diverted onto the I-75 HOV lane. Source: Georgia  
Department of Transportation USGS, **terraserver** .homeadvisor.msn.com CHUCK  
BLEVINS / Staff

18/3,K/5 (Item 3 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

07186200 SUPPLIER NUMBER: 295914251  
**Beam work to make up lost time**  
STANFORD, DUANE D  
Atlanta Journal - Constitution, p C.12  
Feb 28, 2003  
NEWSPAPER CODE: ALJC  
DOCUMENT TYPE: News; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: about 8 tonight and reopening 8 a.m Saturday. Sources:  
Georgia Department of Transportation, USGS, **terraserver**  
.homeadvisor.msn.com

18/3,K/6 (Item 4 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

07178829 SUPPLIER NUMBER: 292288631  
**DOT to try again to start 17th Street bridge beams**  
STANFORD, DUANE D  
Atlanta Journal - Constitution, p E.6  
Feb 22, 2003  
NEWSPAPER CODE: ALJC  
DOCUMENT TYPE: News; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: about 8 tonight and reopening 8 a.m. Saturday. Sources:  
Georgia Department of Transportation, USGS, **terraserver**  
.homeadvisor.msn.com

18/3,K/7 (Item 5 from file: 483)  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

07173730 SUPPLIER NUMBER: 290930371  
**New 17th Street bridge will leave its mark**  
STANFORD, DUANE D  
Atlanta Journal - Constitution, p B.1  
Feb 20, 2003  
NEWSPAPER CODE: ALJC  
DOCUMENT TYPE: News; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT



...ABSTRACT: Saturday. Note: Bridge not to scale. 1993 satellite photo  
Sources: Georgia Department of Transportation, USGS, **terraserver**  
.homeadvisor.msn.com / CHUCK BLEVINS / Staff Graphic NEXT WEEK'S PLANNED  
CLOSINGS All northbound I...

...to change. Bridge not to scale. 1993 satellite photo Sources: Georgia  
Department of Transportation, USGS, **terraserver** .homeadvisor.msn.com /  
CHUCK BLEVINS / Staff Graphic THE BRIDGE'S LAYOUT Graphic description from  
left...

**18/3,K/8 (Item 6 from file: 483)**  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

06577715 SUPPLIER NUMBER: 79817940  
**Online: Pathfinders**  
Anonymous  
Guardian, p ONLINE.3  
Sep 6, 2001  
ISSN: 0261-3077 NEWSPAPER CODE: MG  
DOCUMENT TYPE: Feature; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT

...ABSTRACT: Web with the ability to search more than 1,000 targeted  
sources of information, including **TerraServer**, Adobe PDF Search,  
Britannica.com, NY Times and the US Patent database. The InvisibleWeb  
Catalog...

**18/3,K/9 (Item 7 from file: 483)**  
DIALOG(R)File 483:Newspaper Abs Daily  
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06207161 SUPPLIER NUMBER: 62839770  
**TERRASERVER OFFERS VIEW OF EARTH FROM WILD BLUE YONDER**  
Williams, Charles  
St. Louis Post - Dispatch, p T.2  
Oct 22, 2000  
NEWSPAPER CODE: SL  
DOCUMENT TYPE: Commentary; Newspaper article  
LANGUAGE: English RECORD TYPE: ABSTRACT

**TERRASERVER OFFERS VIEW OF EARTH FROM WILD BLUE YONDER**

ABSTRACT: **TerraServer** .com began operating from Research Triangle Park,  
N.C., in November last year. The company...

**18/3,K/10 (Item 8 from file: 483)**  
DIALOG(R)File 483:Newspaper Abs Daily  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

04985367  
**For Sale: Satellite Photos of Your House, Available on Internet**  
Belsie, Laurent  
Christian Science Monitor, p 14, col 4  
Apr 9, 1998  
ISSN: 0882-7729 NEWSPAPER CODE: CS

DOCUMENT TYPE: Commentary; Newspaper  
LANGUAGE: English            RECORD TYPE: ABSTRACT  
LENGTH: Medium (6-18 col inches)

...ABSTRACT: favorite National Park. Aerial Images is selling the photos over the Internet at its www. **terraserver** .com Web site. Admittedly, this is a little spooky. The satellite technology from which you...

18/3,K/11            (Item 1 from file: 248)  
DIALOG(R)File 248:PIRA  
(c) 2003 Pira International. All rts. reserv.

00569593    Pira Acc. Num.: 20169567

**Title: Alchemedia Clever Content**

Authors: Letts M

Source: Seybold Rep. Internet Publ. vol. 4, no. 9, May 2000, p. 31

Publication Year: 2000

Document Type: Journal Article

Language: English

...Abstract: with NaviSite and Akamai, and Aerial Images is using Clever Content on its portal site, **TerraServer** .com, which offers high-resolution satellite images. (Short article)

?

24/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

7387254 INSPEC Abstract Number: B2002-10-6135C-144, C2002-10-5260D-086

**Title: Tracing watermarking for multimedia communication quality assessment**

Author(s): Campisi, P.; Carli, M.; Giunta, G.; Neri, A.

Author Affiliation: Dipt. di Ingegneria Elettronica, Universita degli Studi Roma Tre, Rome, Italy

Conference Title: 2002 IEEE International Conference on Communications. Conference Proceedings. ICC 2002 (Cat. No.02CH37333) Part vol.2 p. 1154-8 vol.2

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 2002 Country of Publication: USA 5 vol.1vi+3456 pp.

ISBN: 0 7803 7400 2 Material Identity Number: XX-2002-01405

U.S. Copyright Clearance Center Code: 0-7803-7400-2/02/\$17.00

Conference Title: Proceedings of IEEE International Conference on Communications

Conference Date: 28 April-2 May 2002 Conference Location: New York, NY, USA

Language: English

Subfile: B C

Copyright 2002, IEE

Abstract: Multimedia data hiding by **digital watermarking** is usually employed for copyright protection purposes. In this contribution, a new application of watermarking...

... signal, a (known) tracing watermark tracks the (unknown) information stream that follows the same communication **link**. The detection of the tracing watermark allows dynamically evaluating the effective quality of the provided video services, depending on the whole physical layer (including the employed **image** co/decoder). The performed method is based on the mean-square-error between estimated and...

...Descriptors: **land** mobile radio

...Identifiers: communication **link** ; ...

... **image** coder...

... **image** decoder

24/3,K/2 (Item 2 from file: 2)

DIALOG(R)File 2:INSPEC

(c) 2003 Institution of Electrical Engineers. All rts. reserv.

5452060 INSPEC Abstract Number: A9703-8170C-009, B9702-0590-008

**Title: Speckle pattern correlation for local approach of damage evaluation**

Author(s): Slangen, P.; Ienny, P.; Nemoz-Gaillard, M.

Author Affiliation: Lab. de Mecanique et Metrol., Ecole des Mines d'Ales, France

Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.2782 p.424-35

Publisher: SPIE-Int. Soc. Opt. Eng,

Publication Date: 1996 Country of Publication: USA

CODEN: PSISDG ISSN: 0277-786X

SICI: 0277-786X(1996)2782L:424:SPCL;1-U

Material Identity Number: C574-96233

U.S. Copyright Clearance Center Code: 0 8194 2168 5/96/\$6.00

Conference Title: Optical Inspection and Micromeasurements  
Conference Sponsor: SPIE; CNRS; Minist. Defense; Direction Gen.  
l'Armement; et al  
Conference Date: 10-14 June 1996 Conference Location: Besancon, France  
Language: English  
Subfile: A B  
Copyright 1996, IEE

...Abstract: non intrusive methods are well suited for non destructive testing (NDT) and for damage evaluation. **Image** correlation is well suited in mesoscopic approach between successive steps of deformation and on be...

... object under study is carrying a characteristic pattern. As a characteristic pattern the white light **image** of the object surface or the subjective speckle generated by coherent illumination of an optically rough object can be used. The **image** is then grabbed by a high resolution CCD camera. Instead of using a defined mesh on the object, **image** correlation allows dynamic **link** of a point to a pixels pattern called the correlation window. While applying stress or...

...Descriptors: CCD **image** sensors...

... **electronic** speckle **pattern** interferometry...

... **image** resolution...

...surface **topography**

...Identifiers: **image** correlation...

...white light **image** ; ...

...dynamic **link** ;

24/3,K/3 (Item 3 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

4714937 INSPEC Abstract Number: A9417-0630C-001, B9409-7320C-001,  
C9409-7410H-015

Title: Three-dimensional gauging by electronic moire contouring

Author(s): Rodriguez-Vera, R.

Author Affiliation: Centro de Investigacion en Opt., Leon, Mexico

Journal: Revista Mexicana de Fisica vol.40, no.3 p.447-58

Publication Date: June 1994 Country of Publication: Mexico

CODEN: RMXFAT ISSN: 0035-001X

Language: English

Subfile: A B C

...Abstract: measurement and mapping of three-dimensional surfaces. Gauging accuracy depends on measurement accuracy in the **images** , **image** scale, and stereo-geometry. In industrial applications such as for quality control, multiple cameras are...

...projector. In order to obtain a contour map of the surface, demodulation is carried out **electronically** producing a moire **pattern** . **Digital image** processing by a computer, **linked** to the opto-electronic device, is employed to determine the surface shape.

Descriptors: CCD **image** sensors...

...stereo **image** processing...

...surface **topography** measurement

...Identifiers: **image** scale...

...digital **image** processing

**24/3,K/4** (Item 1 from file: 6)

DIALOG(R)File 6:NTIS

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0050703 NTIS Accession Number: AD-404 549/XAB

**Sketchpad: A Man-Machine Graphical COMMUNICATION System**

(Doctoral thesis)

Sutherland, I. E.

Lincoln Lab., Mass. Inst. of Tech., Lexington.

Corp. Source Codes: 207650

Report No.: LL-TR-296; ESD-TDR63 52

30 Jan 63 100p

Document Type: Thesis

Journal Announcement: USGRDR6401

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NTIS Prices: PC A05

**Sketchpad: A Man-Machine Graphical COMMUNICATION System**

... most usefulness as an aid to the understanding of processes, such as the motion of **linkages**, which can be described with **pictures**. Sketchpad also makes it easy to draw highly repetitive or highly accurate drawings and to...

Descriptors: **Pattern** recognition; \* **Digital** computers; Display systems ; Geometric forms; **Pictures** ; **Topology** ; Programming(Computers); Input-output devices; **Graphics**

**24/3,K/5** (Item 1 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci.

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05160831 Genuine Article#: VE086 No. References: 58

**Title: NODAL STRUCTURE OF THE ELECTRONIC WIGNER FUNCTION OF MANY-ELECTRON ATOMS AND MOLECULES**

Author(s): SCHMIDER H; DAHL JP

Corporate Source: TECH UNIV DENMARK, CHEM DEPT B, DTU 207/DK-2800

LYNGBY//DENMARK/

Journal: INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY, 1996, V60, N1 (OCT 5), P439-452

ISSN: 0020-7608

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

Abstract: On the example of several atomic and small molecular systems, the regular behavior of nodal **patterns** in the **electronic** one-particle reduced Wigner function is demonstrated. An expression found earlier relates the nodal pattern...

...both arguments are large. An argument analogous to the

'bond-oscillatory principle' for momentum densities **Links** the nuclear framework in a molecule to an additional oscillatory term in momenta parallel to...

...Research Fronts: DISTRIBUTIONS; DOPPLER SIGNALS; TREE-STRUCTURED VECTOR

QUANTIZATION; SPEECH CODING; ADAPTIVE KERNEL DESIGN; COMPRESSION OF  
DIGITAL IMAGES )

94-1547 001 (ATOMS IN MOLECULES; DIMETHYL SULFIDE; TOPOLOGICAL  
PROPERTIES OF BOND CHARGE-DISTRIBUTION; MO COMPLEXES; THEORETICAL  
DEFINITION)

94-4244 001 (AB-INITIO CALCULATION...

24/3,K/6 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

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01260864 ORDER NO: AAD93-01306

**QUANTITATIVE ANALYSIS OF HABITAT FRAGMENTATION USING COMPUTER-GENERATED  
LANDSCAPES AND SATELLITE IMAGES ( LANDSCAPE ECOLOGY)**

Author: GUSTAFSON, ERIC JON

Degree: PH.D.

Year: 1992

Corporate Source/Institution: PURDUE UNIVERSITY (0183)

Source: VOLUME 53/09-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 4471. 152 PAGES

**QUANTITATIVE ANALYSIS OF HABITAT FRAGMENTATION USING COMPUTER-GENERATED  
LANDSCAPES AND SATELLITE IMAGES ( LANDSCAPE ECOLOGY)**

Steady advances in our understanding of the effects of specific  
**landscape** spatial attributes have led to the formulation of models of  
population and community dynamics in...

...A FORTRAN program (HISA - Habitat Island Spatial Analysis) was written  
to calculate indices of spatial **pattern** from **digital** landcover data. A  
proximity index (PX) was developed that reflects the proximity of each  
patch to a suite of neighbors ( **landscape** context), providing an  
indication of the density of forest habitat in the vicinity of each...

...real agricultural landscapes. The results support the use of percolation  
models as neutral models in **landscape** ecology, and the performance of the  
indices studied with neutral models can be used to...

...and poor landscapes. Spatial parameters were used to mathematically  
classify landscapes.

A Landsat Thematic Mapper **image** was used to model potential **land**  
acquisition for conservation reserves on a highly fragmented **landscape** in  
northwestern Indiana. Simulations of various reserve configurations that  
bridged areas of low PX values showed that **linkage** corridors and a  
"string-of-pearls" configuration were the most efficient way to increase PX  
...

24/3,K/7 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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15260791 PASCAL No.: 01-0430529

**Integrating concepts of landscape ecology with the molecular biology of  
forest pathogens**

LUNDQUIST John E; KLOPFENSTEIN Ned B

USDA Forest Service, Rocky Mountain Research Station, 240 Prospect Road,  
Fort Collins, CO 80526, United States; USDA Forest Service, Forestry  
Sciences Laboratory, Rocky Mountain Research Station, 1221 South Main,

Moscow, ID 83843, United States

Journal: Forest ecology and management, 2001, 150 (3) 213-222

Language: English

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**Integrating concepts of landscape ecology with the molecular biology of forest pathogens**

... within forest pathogen populations using molecular markers but few studies have characterized features of the **landscape** that help create or maintain this diversity. Forest diseases commonly occur in patchy distributions across...

... detailed differences among subpopulations of forest pathogens. Geographical information systems, spatial analysis and modeling, digital **imagery** of remotely sensed **images**, and other tools of **landscape** ecology provide the means to detect and interpret patterns associated with genotypic asymmetry. Integrating the tools and concepts of molecular biology and **landscape** ecology by focusing on metapopulation disease phenomena offers a way of conceptually **linking** molecules and ecosystems.

English Descriptors: Ecology; Forests; Genetic marker; Biodiversity; Natural population; **Landscape**; Population survey; Genetic variability; Molecular biology; Forest tree; Plant pathogen; Remote sensing; Geographic information system; **Imagery**; **Digital image**; **Conceptualization**; Molecular **marker**

...French Descriptors: naturelle; Paysage; Surveillance population; Variabilite genetique; Biologie moleculaire; Arbre forestier; Phytopathogene; Teledetection; Systeme information géographique; **Imagerie**; **Image numerique**; Conceptualisation; Marqueur moleculaire

...Spanish Descriptors: Paisaje; Vigilancia poblacion; Variabilidad genetica; Biologia molecular; Arbol forestal; Fitopatogeno; Teledeteccion; Sistema informacion geografica; Imagineria; **Imagen numerica**; Conceptualizacion; Marcador molecular

24/3,K/8 (Item 1 from file: 89)

DIALOG(R)File 89:GeoRef

(c) 2003 American Geological Institute. All rts. reserv.

02273696 GEOREF: 99-09628

**TITLE: Compiling digital geologic maps in the field using a GPS receiver and the GSMCAD program; experiences from the USGS -Las Vegas urban corridor project**

**AUTHOR(S):** Williams, Van S.

**CORPORATE SOURCE:** U. S. Geological Survey, Lakewood, CO, United States

**MONOGRAPH TITLE:** Geological Society of America, 1997 annual meeting

**AUTHOR(S):** Anonymous

**CONFERENCE TITLE:** Geological Society of America, 1997 annual meeting

**CONFERENCE LOCATION:** Salt Lake City, UT, United States,

**CONFERENCE DATE:** Oct. 20-23, 1997

**PUBLISHER:** Geological Society of America (GSA), Boulder, CO, United States

**SOURCE:** Abstracts with Programs - Geological Society of America vol. 29 no. 6; p. 290

**DATE:** 1997

**CODEN:** GAAPBC **ISSN:** 0016-7592

**LANGUAGE:** English

TITLE: ...maps in the field using a GPS receiver and the GSMCAD program;  
experiences from the USGS -Las Vegas urban corridor project

ABSTRACT: USGS is integrating use of GPS, hand held data entry devices,  
and laptop computers to speed...

...of digital geologic mapping. An approach of the Las Vegas urban corridor  
project uses GSMCAD ( USGS OFR 96-007), a Microsoft Windows program for  
compilation of geologic maps, in combination with...

...tablet would, allowing attributed points and lines to be digitized into  
the digital map and **linked** to notes, tables, structural **symbols** , or  
**digital photographs** . For foot traverses, notes entered on a palm-size  
computer are **linked** to geographic coordinates either through a cable  
connection to the GPS or by indexing them...

...memory. Waypoint coordinates are downloaded to the laptop as points on  
the digital map, and **linked** to structural data and notes that are  
either downloaded from the palm-sized computer or...

...RESEARCH PROGRAM DESCRIPTORS: Non- USGS publications with USGS  
authors

?



27/3,K/1 (Item 1 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05972180 E.I. No: EIP01536790504

**Title: Transporting mobile code with internal authentication and tamper detection**

Author: Marvel, L.M.; Baur, E.H.; Hartwig G.W., Jr.

Corporate Source: Comp. and Info. Sci. Directory Comp. and Commun. Sci. Division, Aberdeen Proving Ground, MD 21005, United States

Conference Title: Battlespace Digitization and Network-Centric Warfare

Conference Location: Orlando, FL, United States Conference Date: 20010418-20010420

E.I. Conference No.: 58861

Source: Proceedings of SPIE - The International Society for Optical Engineering v 4396 2001. p 108-115

Publication Year: 2001

CODEN: PSISDG ISSN: 0277-786X

Language: English

...Abstract: based on the characteristics of the mobile code itself. This signature, or mark, is then **embedded** within the code in a hidden manner using steganographic methods. Upon receipt of the mobile code, the client can use the key to extract the **embedded** mark and regenerate a mark from the receive code. The two marks are compared to...

...integrity of the code and the authenticity of the sender. This technique is implemented for **HTML** code and the effectiveness of tamper detection is demonstrated. Mobile code authentication techniques, such as

... Descriptors: **Electronic** warfare; Codes ( **symbols** ); Computer software; Security of data; Electronic document identification systems; Cryptography; Analog to digital conversion; Internet; Client server computer systems; Computer system firewalls; **HTML** ; Java programming language; Algorithms

Identifiers: Mobile code; Authentication; Tamper detection; Battlespace; Steganography; Mark **embedding**

27/3,K/2 (Item 1 from file: 144)

DIALOG(R) File 144:Pascal

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15334807 PASCAL No.: 02-0021485

**Fingerprinting text in logical markup languages**

**Information security : Malaga, 1-3 October 2001**

JENSEN Christian D

DAVIDA George I, ed; FRANKEL Yair, ed

Department of Computer Science, Trinity College Dublin, Dublin , Ireland

ISC 2001 : international conference on information security, 4 (Malaga ESP) 2001-10-01

Journal: Lecture notes in computer science, 2001, 2200 433-445

Language: English

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... research community. Most of this research has centered around hiding information, such as watermarks and **fingerprints** , in images or **digital** audio and video signals. Text has generally been treated as a black & white image with...

... order to reconstruct the text. Document distribution is increasingly

relying on logical markup languages like **HTML** and XML, where the physical presentation of the text is determined by the user's browser. **Embedding** the watermark in the physical presentation of the document is therefore no longer practical. We argue that **embedding** syntactic or semantic fingerprints in text is the only viable way to fingerprint document in logical markup languages such as **HTML** or XML. In this paper, we propose a new semantic fingerprinting mechanism based on synonym...

...English Descriptors: Digital recording; Audio acoustics; Scanning device  
; Pattern recognition; Character recognition; Video signal;  
Audiofrequency; Watermark; Fingerprint; **HTML** language; XML language

...French Descriptors: audio; Dispositif balayage; Reconnaissance forme;  
Reconnaissance caractere; Signal video; Frequence audible; Filigrane;  
Empreinte digitale; Langage **HTML** ; Langage XML

...Spanish Descriptors: numerico; Dispositivo barrido; Reconocimiento  
patron; Reconocimiento caracter; Senal video; Frecuencia audible;  
Filigrana; Huella digital; Lenguaje **HTML** ; Lenguaje XML

?

30/3,K/1 (Item 1 from file: 8)

DIALOG(R) File 8: Ei Compendex(R)

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05050425 E.I. No: EIP98064268397

**Title: Watermarking three-dimensional polygonal models**

Author: Ohbuchi, Ryutarou; Masuda, Hiroshi; Aono, Masaki

Corporate Source: IBM Tokyo Research Lab, Kanagawa, Jpn

Conference Title: Proceedings of the 1997 5th ACM International  
Multimedia Conference

Conference Location: Seattle, WA, USA Conference Date:  
19971109-19971113

E.I. Conference No.: 48543

Source: Proceedings of the ACM International Multimedia Conference &  
Exhibition 1997. ACM, New York, NY, USA. p 261-272

Publication Year: 1997

CODEN: 002179

Language: English

Abstract: The advantages of digital media such as the **Internet** and  
CD-ROMs lie in the fact that their contents are easy to duplicate, edit...

...Data are placed into 3D polygonal models by modifying either their  
vertex coordinates, their vertex **topology** (connectivity), or both. A  
brief review of related work and a description of the requirements...

Descriptors: Computational geometry; Three dimensional computer **graphics**  
; Algorithms; Data processing; Digital signal processing; Computer  
simulation; Copyrights

Identifiers: Three dimensional polygonal models; Data embedding  
algorithms; Digital watermarking; **Steganography** ; Copyright protection;  
Digital fingerprinting

?

33/3,K/1 (Item 1 from file: 2)

DIALOG(R)File 2:INSPEC

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6794983 INSPEC Abstract Number: B2001-02-7730-005

**Title: Application of generalized constrained energy minimization approach to urban road detection**

Author(s): Chinsu Lin; Chuin-Mu Wang; Chein-I Chang

Author Affiliation: Dept. of Forestry, Nat. Chiayi Univ., Taiwan

Conference Title: IGARSS 2000. IEEE 2000 International Geoscience and Remote Sensing Symposium. Taking the Pulse of the Planet: The Role of Remote Sensing in Managing the Environment. Proceedings (Cat. No.00CH37120) Part vol.5 p.2080-2 vol.5

Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 2000 Country of Publication: USA 7 vol.(clvi+3242)

pp.

ISBN: 0 7803 6359 0 Material Identity Number: XX-2000-01768

U.S. Copyright Clearance Center Code: 0 7803 6359 0/2000/\$10.00

Conference Title: IGARSS 2000. IEEE 2000 International Geoscience and Remote Sensing Symposium. Taking the Pulse of the Planet: The Role of Remote Sensing in Managing the Environment

Conference Sponsor: IEEE; IEEE Geosci. & Remote Sensing Soc.; NASA; NOAA; Office of Naval Res.; Nat. Resources Canada; Canadian Space Agency; Nat. Space Dev. Agency of Japan; URSI

Conference Date: 24-28 July 2000 Conference Location: Honolulu, HI, USA

Language: English

Subfile: B

Copyright 2000, IEE

Abstract: Classification of thematic layers have been used to update digital databases, particularly digital **maps** which can be accessed on the **Internet** by a fast growing number of users. One of the most important features in **digital maps** is **traffic patterns** and road networks. Unfortunately, due to low spectral and spatial resolutions of satellite imagery, many...

...Descriptors: **terrain** mapping

...Identifiers: digital **maps** ;

33/3,K/2 (Item 1 from file: 89)

DIALOG(R)File 89:GeoRef

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02517276 GEOREF: 02-024389

**TITLE: Extracao automatica de canais de drenagem utilizando modelos digitais de altitude**

**TRANSLATED TITLE: Automatic extraction of network drainage by digital elevation models**

**AUTHOR(S):** Delazari, Luciane S.; Vieira, Antonio Jose Berutti; Dalmolin, Quintino

**CORPORATE SOURCE:** Universidade Federal do Parana, Curitiba, Brazil

**PUBLISHER:** Universidade Federal do Parana, Instituto de Geologia, Curitiba, Brazil

**SOURCE:** Boletim Paranaense de Geociencias vol. 46 p. 91-96

**DATE:** 1998

**CODEN:** BPGCAI **ISSN:** 0067-964X

**LANGUAGE:** Portuguese **SUMMARY LANGUAGE:** English

...ABSTRACT: resources. They are most commonly derived via manual

compilation or by a process of digitizing **topographical maps** . The development of Digital Elevation Model (DEM) has allowed an automatic extraction of drainage networks...

...This program, SKEL, was developed at the University of Israel and can be obtained via **Internet** . A methodology for an automatic extraction of drainage networks based on DEM has been developed...

...generation and extraction of the drainage network. As far as data gathering is concerned, nine **maps** covering the region were used (scale 1:10.000). The tests covered an area of...

...equal to 10 m. The study had to cover only one out of the nine **maps** due to problems with data processing with the SPRING v.1.1. The map used

...  
DESCRIPTORS: aquifers; cartography; computer programs; data processing;  
digital cartography; digital **terrain** models; **digitization** ; drainage  
**patterns** ; geographic information systems; ground water; hydrology;  
imagery; information systems; preferential flow

?

37/3,K/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
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03228922 INSPEC Abstract Number: C88055236

**Title: Feature-based symbol recognition with neural networks**

Author(s): Elliman, D.G.; Banks, R.N.

Author Affiliation: Nottingham Univ., UK

Conference Title: UK IT 88 Conference Publication p.300-3

Publisher: Inf. Eng. Directorate, London, UK

Publication Date: 1988 Country of Publication: UK xix+618 pp.

Conference Date: 4-7 July 1988 Conference Location: Swansea, UK

Language: English

Subfile: C

**Abstract:** This work is part of the Drawing Recognition Project, which is attempting to convert scanned **images** of drawings and **maps**, up to A0 in size, to the high level representations typical of a CAD file. The scanned data is initially captured in run-length form. In recognising **symbols** (letters, **digits**, and other **symbols**), the **image** is first segmented, and features extracted. Then matching of the feature set representing **each** symbol, against standard templates occurs. The authors have investigated neural networks as one of a number of methods of feature matching, and developed transformations from common neural network **topologies** to simple Transputer nets.

...Identifiers: **image** segmentation...

...scanned **images** ; ...

... **maps** ; ...

...network **topologies** ;

37/3,K/2 (Item 1 from file: 6)  
DIALOG(R)File 6:NTIS  
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0944066 NTIS Accession Number: N82-15485/7/XAB

**Wheat Cultivation: Identification and Estimation of Areas Using Landsat Data Cultura Do Trigo Identificacao E Avaliacao de Areas Atraves de Dados Do Landsat**

Dejesusparada, N. ; Mendonca, F. J. ; Cottrell, D. A. ; Tardin, A. T. ; Lee, D. C. L.

Instituto de Pesquisas Espaciais, Sao Jose dos Campos (Brazil).

Corp. Source Codes: 058511000; IO601891

Sponsor: National Aeronautics and Space Administration, Washington, DC.

Report No.: E82-10007; NASA-CR-164905

May 81 5p

Languages: Portuguese

Journal Announcement: GRAI8210; STAR2006

Text in Portugese. Sponsored by NASA. Erts.

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NTIS Prices: PC A02/MF A01

... 40 km segments in a wheat growing region of Rio Grande do Sul were aerielly **photographed** using type 2443 Aerochrome film. Three **maps**

corresponding to **each** segment were obtained from the analysis of the **photographs** which identified wheat, barley, fallow **land** , prepared soil, forests, and reforested **land** . Using basic information about the fields and **maps** made from the **photographed** areas, an automatic classification of wheat was made using MSS data from two different periods...

Descriptors: Agroclimatology; \*Brazil; \*Crop inventories; \* **Digital** data ; \* **Pattern** recognition; \*Wheat; Aerial **photography** ; Earth resources program; Multispectral band scanners; Satellite observation; Thematic mapping

37/3,K/3 (Item 1 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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02721114 E.I. Monthly No: EI8903025924

**Title: Graph-based vectorization method for line patterns.**

Author: Suzuki, Satoshi

Corporate Source: NTT, Yokosuka, Jpn

Conference Title: Proceedings - CVPR '88: Computer Society Conference on Computer Vision and Pattern Recognition.

Conference Location: Ann Arbor, MI, USA Conference Date: 19880605

E.I. Conference No.: 11800

Source: Proc CVPR 88 Comput Soc Conf on Comput Vision and Pattern Recognit. Publ by IEEE, New York, NY, USA. Available from IEEE Service Cent (cat n 88CH2605-4) Piscataway, NJ, USA. p 616-621

Publication Year: 1988

ISBN: 0-8186-0862-5

Language: English

Abstract: A vectorization method for line patterns is proposed which converts digital binary **images** into line segment vectors. The vector data is more compact and more natural than that...

...thinning operations. The proposed method consists of four steps. First, thinning of an input binary **image** is performed. Then a medial line **image** obtained by the thinning operation is transformed into a graph, in which pixels on the...

...nodes and neighboring nodes are connected by edges. Next, extra edges unnecessary for preserving the **topology** of the medial line **image** are deleted. The deletion can be implemented as an iterative parallel operation. Finally, the graph is simplified by line approximation. **Every** step except the line approximation is suitable for parallel processing. The experimental results of applying the proposed method to geographical **maps** show that the method reduces data volume by about 30%, as compared with conventional methods...

Identifiers: GRAPH-BASED VECTORIZATION; LINE **PATTERNS** ; **DIGITAL** BINARY **IMAGES** ; LINE APPROXIMATION

37/3,K/4 (Item 1 from file: 35)

DIALOG(R)File 35:Dissertation Abs Online

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**THE SIGNIFICANCE OF GEOMORPHOMETRIC VARIABLES IN LANDSAT MSS ANALYSIS OF A HIGH RELIEF ENVIRONMENT**

Author: FRANKLIN, STEVEN ERIC

Degree: PH.D.

Year: 1985

Corporate Source/Institution: UNIVERSITY OF WATERLOO (CANADA) (1141)

Source: VOLUME 46/11-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 3765.

In this study it is proposed that higher levels of **terrain** classification accuracy in the **landscape** approach can be achieved through computer analysis of LANDSAT multispectral **images** with elevation model variables. A high relief environment in southwestern Yukon Territory is selected for a demonstration of integrated **terrain** mapping from conventional aerial photointerpretations and the digital information. A fundamental hypothesis tested in this...

...digital data and methods offer significant advantages in terms of survey reliability, accuracy and repeatability.

**Digital patterns** in spectral response and geomorphometry are shown to capture those attributes of the surface necessary for classification of **landscape** units. The patterns consist of the four bands of the multispectral scanner (MSS) and elevation, slope, incidence value, relief and convexity extracted from the elevation model in the area of **each** MSS pixel. Elevation is shown to contribute the greatest explanation of spectral variations. This is...

...the distribution of soils, landform and lithology in the study area.

Classification of the MSS **digital patterns** reveals up to 46% agreement with conventional survey. This agreement is increased up to 75% as the MCC data are augmented with geomorphometric patterns. **Maps** produced using this discrimination are 41% and 70% accurate, respectively, when the classes are weighted...

37/3,K/5 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

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11506852 PASCAL No.: 94-0347556

**A high performance Interactive Image SpreadSheet (IISS)**

HASLER A F; PALANIAPPAN K; MANYIN M; DODGE J

Laboratory for Atmospheres, NASA/Goddard Space Flight Center, Greenbelt, Maryland 20771; NASA Headquarters Washington, DC 20546

Journal: Computers in Physics, 1994-05, 8 (3) 325-342

Language: English

Copyright (c) 1994 American Institute of Physics

**A high performance Interactive Image SpreadSheet (IISS)**

... spreadsheet paradigm has been extended to develop a new scientific visualization approach for processing multisensor **image** datasets interactively. Exploring the advantages of extending the powerful spreadsheet style of computation to multiple sets of **images** and organizing **image** processing tasks is the objective of the Interactive **Image SpreadSheet (IISS)** project at Goddard Space Flight Center. In the **IISS** **each** cell can display any **portion** of an original or calculated **image**, a projection of a multidimensional dataset such as a 3-D surface, a glyph ( **graphic symbol** ) representing an **image**, **digitized maps**, digital **terrain** models, graphs, or vector drawings. The term **image** is used in a general sense to refer to any 2-D multisource dataset. The **IISS** typically contains an array of **image** cells of arbitrary size **each** of which can contain one or more frames ( **images** ). The user can scroll or page through this multidimensional cube of frames along any dimension...



... unique capability that the IISS provides are the highly interactive browsing tools, accessible through a **graphical** user interface, for effectively inspecting large sets of **image** arrays using synchronized cell level operations such as zoom, roam, animation, and function execution. The ...

... powerful visualization tools to enable an investigator to easily experiment with various combinations of multispectral **image** data using a library of standard algorithms and to interactively develop custom algorithms. Remotely sensed...

English Descriptors: Computerized simulation; Measuring methods; Visualization; Computer **graphics** ; Satellites; Data processing; Sensors; **Image** forming; **Image** processing; Interactive display devices; Remote sensing

French Descriptors: Simulation ordinateur; Methode mesure; 0650D; 9540; 4279P; 4230V; Visualisation; Infographie; Satellite; Traitement donnee; Capteur; Formation **image** ; Traitement **image** ; Dispositif affichage conversationnel; Teledetection

37/3,K/6 (Item 1 from file: 89)

DIALOG(R)File 89:GeoRef

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02405643 GEOREF: 00-068417

TITLE: **Satelitarna mapa krajobrazowa Beskidu Slaskiego**

TRANSLATED TITLE: The satellite **landscape** map of the Silesian Beskidy Mountains

AUTHOR(S): Fiejdasz, Witold; Widacki, Wojciech

CORPORATE SOURCE: Okregowe Przedsiwbiortstwo Geodezyjno-Kartograficzne, Cracow, Poland

CORPORATE SOURCE: ; Jagiellonian University, Poland

PUBLISHER: Instytut Geografii Uniwersytetu Mikolaja Kopernika, Komisja

Fotointerpretacji, Przy Polskim Towarzystwie Geograficznym, Torun, Poland

SOURCE: Fotointerpretacja w Geografii vol. 26 p. 3-12

DATE: 1998

CODEN: #01485 ISSN: 0071-8076

LANGUAGE: Polish SUMMARY LANGUAGE: English

TRANSLATED TITLE: The satellite **landscape** map of the Silesian Beskidy Mountains

...ABSTRACT: natural environment. One of the ways to render the structure of the environment is the **landscape** map. The authors identified types of **landscape** characteristic of the **parts** of the Western Beskidy mountains using **digital pattern** of relief, satellite and the Geographic Information Systems (GIS) as a tool for integrating the data as well as for compiling and processing **maps** . The area of the research - the Silesian Beskidy Mountains (Fig. 1), situated at the western...

...flattened and rounded. The area is primarily wooded, with a predominance of spruce forests. Arable **land** , meadows and grassland can be found in valley plains and lower **parts** of the slopes. The region attracts many tourists. The forests of the Silesian Beskid mountains...

...1.), the highest mountain of the range. This study was prepared using the content of **topographic maps** in the scales 1:10 000 and 1:50 000 and forest **maps** in the scales 1:10 000 and 1:25 000 as well as data

from a Landsat TM satellite **image** taken on July 12, 1992. The 30-metre resolution of the satellite **image** was adopted for the compilation of all the **maps**. The content of the **maps** was digitalised using the Auto/CAD application, and subsequently the vectoral data was exported to the IDRISI program and rasterized. All the following conversions of the **maps** were done using this application. The **landscape** map was created as a result of overlaying the content of the **maps** of relief types and of **land** use, which were compiled during two simultaneous activities (Fig. 2). The former involved the **topographic** map, the digital elevation model, the gradient map, **maps** of concave and convex forms, and the map of types of relief patterns, while the latter involved the satellite **photograph** and the **land** use map. The content of the **landscape** map was further expanded by overlaying, as a result of digitalisation, the lines of principal...

...from digitalised contours, whereas the map of relief types depicting valley-floors including the concave **parts** of slopes, slopes and hilltops with convex, upper **parts** of slopes was created on the basis of information included in the model. It was...

...of the three categories of mezo-forms of relief: valley-floors, slopes and hilltops. The **land**-use map was drawn using the data from the satellite **image** and information from the **topographic** and forest **maps**. The content of those **maps** was then used to identify training sites. They were marked on the **image** which was an effect of an analysis of the principal components conducted for the channels of the TM satellite **image**: 3, 4 and 7. The result of the analysis were several components to which the...

...The first component, containing 89 per cent of the data from the bands of the **image** was better suited for this purpose than the unprocessed channels. In order to arrange pixels of the satellite **image**, supervised classification was carried out. Due to the difficulties in using simultaneously all the signatures for the purposes of classification, the satellite **image** was divided into two **parts**: the wooded and the un-wooded areas, for which separate classification was carried out. The ...

...area, altogether occupying up to 2 km (super 2), were combined into one class. The **land**-use map was a result of combining the results of the classification for wooded and un-wooded areas. The structure of **land** use is highlighted in Table 1. The satellite **landscape** map was compiled as a result of amalgamating the map of **land** relief types and the **land**-use map (Fig. 9). The resulting map clearly shows a separate and condensed woodland complex...

...which is due to the diversity of climatic conditions. The pattern of colours of the **landscape** map renders the colours typical of the Beskid landscapes in high vegetation season. The forests are rendered with various shades of green, and arable **land** -- with light brown hues. The morphological diversity which affects lighting, was rendered using tonal shading...

DESCRIPTORS: Auto/CAD; Beskid Mountains; Carpathians; cartography; Central Europe; classification; clastic rocks; digital **terrain** models; digitization; Europe; forests; geographic information systems; information systems; **land** use; landscapes; pixels; Poland; Polish Carpathians; relief; remote sensing; sandstone; satellite methods; sedimentary rocks; Silesia; slopes; **topography**; Vistula River; weathering

37/3,K/7 (Item 2 from file: 89)  
DIALOG(R)File 89:GeoRef  
(c) 2003 American Geological Institute. All rts. reserv.

02161500 GEOFREF: 97-48496  
TITLE: **The emperor has no clothes; a somewhat counter-intuitive but efficient approach for the rapid conversion of geologic maps**  
AUTHOR(S): Fleischmann, Karl H.; Aiken, Carlos L. V.  
CORPORATE SOURCE: University of Texas at Dallas, Center for Lithospheric Studies, Richardson, TX, United States  
MONOGRAPH TITLE: **Geological Society of America, 28th annual meeting**  
AUTHOR(S): Anonymous  
CONFERENCE TITLE: Geological Society of America, 28th annual meeting  
CONFERENCE LOCATION: Denver, CO, United States,  
CONFERENCE DATE: Oct. 28-31, 1996  
PUBLISHER: Geological Society of America (GSA), Boulder, CO, United States  
SOURCE: Abstracts with Programs - Geological Society of America vol. 28  
no. 7; p. 463  
DATE: 1996  
CODEN: GAAPBC ISSN: 0016-7592  
LANGUAGE: English

TITLE: **...no clothes; a somewhat counter-intuitive but efficient approach for the rapid conversion of geologic maps**  
ABSTRACT: We have developed and tested a method for creating digital databases from geologic **maps** which avoids steps which are overly labor intensive. We have used this method to build...

...Typically, one might use an on-screen digitizing program to convert from a raster scanned **image** to a vector format or use a digitizing table. We take the counter-intuitive first...

...of preparing line-art separates. Because these lack the clutter and ambiguity of a scanned **image**, separates can be scanned and converted directly to AutoCad DXF format, bypassing heads-up digitizing. Once converted to AI coverages, **maps** are edited in a multi-threaded AML application which controls the editing environment and standardizes...

...have also developed specialized tools to assign attributes to contour data, and to generate digital **terrain** models using a minimum curvature. Finally, strike and dip **symbols** are **digitized** directly from the paper originals using the right-hand rule. This program creates an Arc...

...heads-up digitizing, (2) rigid control of the editing and attributing environment, and (3) developing **specific** tools to manipulate geological data we have realized an order of magnitude increase in productivity...

...DESCRIPTORS: China; Commonwealth of Independent States; conversion; data bases; data processing; digitization; efficiency; Far East; geologic **maps** ; **maps** ; Mexico; Nigeria; Russian Federation; South America; Venezuela; Vietnam; West Africa

37/3,K/8 (Item 1 from file: 292)  
DIALOG(R)File 292:GEOBASE(TM)  
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00901649 SUPPLIER NO. 2178991  
**Perceptual grouping for symbol chain tracking in digitized topographic maps**

Gamba P.; Mecocci A.

ADDRESS: P. Gamba, Dipartimento di Electtronica, Universita di Pavia, Via  
Ferrata 1, 27100 Pavia, Italy

EMAIL: gamba@ele.unipv.it

Pattern Recognition Letters, 20/4 (355-365), 1999

COUNTRY OF PUBLICATION: United Kingdom

ISSN: 0167-8655

PUBLISHER ITEM IDENTIFIER: S0167865599000033

DOCUMENT TYPE: Journal; Article

LANGUAGES: English SUMMARY LANGUAGES: English

NO. OF REFERENCES: 24

**Perceptual grouping for symbol chain tracking in digitized topographic maps**

...paper a new algorithm that applies perceptual grouping to detect and track discontinuous chains of **symbols** in **digitized maps** is proposed. The procedure is based on an artificial intelligence kernel that supervises three different...

...recognized symbols; the Cost Function Evaluation (CFE) module that assigns a global quality index to **each** symbol by considering the whole course of the line. Selected Gestalt rules are used to...

...the algorithm discussion, the problem of the extraction of dotted and dashed lines from digitized **topographic maps** is discussed. Experimental results on many **maps** of the Istituto Geografico Militare Italiano (IGMI) show a very good behavior: 92% of the...

**DESCRIPTORS:**

digital map; **image** analysis; **topographic** mapping

...Remote sensing: numerical and **image** analysis)

40/3,K/1 (Item 1 from file: 2)  
DIALOG(R)File 2:INSPEC  
(c) 2003 Institution of Electrical Engineers. All rts. reserv.

6991365 INSPEC Abstract Number: B2001-09-6210R-005  
**Title: Robust video watermarking for wireless multimedia communications**  
Author(s): Checcacci, N.; Barni, M.; Bartolini, F.; Basagni, S.  
Conference Title: 2000 IEEE Wireless Communications and Networking  
Conference. Conference Record (Cat. No.00TH8540) Part vol.3 p.1530-5  
vol.3  
Publisher: IEEE, Piscataway, NJ, USA  
Publication Date: 2000 Country of Publication: USA 3 vol. xxx+11602  
pp.  
ISBN: 0 7803 6596-8 Material Identity Number: XX-2001-00199  
U.S. Copyright Clearance Center Code: 0 7803 6596 8/2000/\$10.00  
Conference Title: Proceedings of IEEE Conference on Wireless  
Communications and Networking  
Conference Date: 23-28 Sept. 2000 Conference Location: Chicago, IL,  
USA  
Language: English  
Subfile: B  
Copyright 2001, IEE

Abstract: **Digital watermarking** involves **embedding** copyright marks  
(watermarks), often imperceptibly, in multimedia objects to enhance or  
protect their value. In...

... all of which are available in previous solutions. These properties  
include: resistance (robustness) of the **embedded** watermark to the  
error-prone nature of wireless channels as well as to video frame loss or  
misplacement, negligible probability of reading a non- **embedded** watermark,  
non-degradation of the marked video sequence and the possibility to mark  
video objects...

...Descriptors: **image** sequences...

... **land** mobile radio

...Identifiers: **digital watermarking** ; ...

... **embedded** watermark

40/3,K/2 (Item 2 from file: 2)  
DIALOG(R)File 2:INSPEC  
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6314628 INSPEC Abstract Number: C1999-09-6130B-063  
**Title: A shape-preserving data embedding algorithm for NURBS curves and  
surfaces**  
Author(s): Ohbuchi, R.; Masuda, H.; Aono, M.  
Author Affiliation: Yamanashi Univ., Kofu, Japan  
Conference Title: Proceedings Computer Graphics International p.180-7  
Publisher: IEEE Comput. Soc, Los Alamitos, CA, USA  
Publication Date: 1999 Country of Publication: USA xi+249 pp.  
ISBN: 0 7695 0185 0 Material Identity Number: XX-1999-01667  
U.S. Copyright Clearance Center Code: 0 7695 0185 0/99/\$10.00  
Conference Title: Proceedings of Computer Graphics International 1999  
Conference Sponsor: Comput. Graphics Soc. (CGS); Silicon Graphics Int.  
(SGI); Int. Business Machines Corp. (IBM)  
Conference Date: 7-11 June 1999 Conference Location: Canmore, Alta.,  
Canada

Language: English  
Subfile: C  
Copyright 1999, IEE

**Title:** A shape-preserving data embedding algorithm for NURBS curves and surfaces

**Abstract:** Existing data embedding algorithms for polygonal meshes and their attributes cannot be applied to the majority of (geometric...

... their main shape-defining primitives. Second, most CAD applications do not tolerate modifications of model topology and/or geometry that are introduced by existing data embedding algorithms. We propose a new data embedding algorithm for non-uniform rational B-spline (NURBS) curves and surfaces, which employs rational linear reparameterization for embedding messages. The algorithm exactly preserves the shape, that is, the geometry and topology of its embedding targets. Furthermore, it preserves the data size of the model. We consider how these two...

...and preservation of data size, can be significant with regard to the use of data embedding in CAD applications. In addition to the shape- and data size-preserving data embedding algorithm for NURBS curves and surfaces, we outline additional methods for embedding data in various types of parametric curves and surfaces.

...Descriptors: computer graphics ;

Identifiers: shape-preserving data embedding algorithm...

...model topology ; ...

... digital watermarking ;

40/3,K/3 (Item 3 from file: 2)

DIALOG(R) File 2:INSPEC

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6093465 INSPEC Abstract Number: C9901-6130B-051

**Title:** Data embedding algorithms for geometrical and non-geometrical targets in three-dimensional polygonal models

Author(s): Ohbuchi, R.; Masuda, H.; Aono, M.

Author Affiliation: Res. Lab., IBM, Tokyo, Japan

Journal: Computer Communications Conference Title: Comput. Commun. (Netherlands) vol.21, no.15 p.1344-54

Publisher: Elsevier,

Publication Date: 1 Oct. 1998 Country of Publication: Netherlands

CODEN: COCOD7 ISSN: 0140-3664

SICI: 0140-3664(19981001)21:15L.1344:DEAG;1-Z

Material Identity Number: H089-98011

U.S. Copyright Clearance Center Code: 0140-3664/98/\$19.00

Conference Title: Interactive Distributed Multimedia Systems and Telecommunication Services. 4th International Workshop, IDMS '97

Conference Sponsor: ACM SIGMM; Gesellschaft fur Inf.; GMD; IEEE Germany Sect.; et al

Conference Date: 10-12 Sept. 1997 Conference Location: Darmstadt, Germany

Language: English

Subfile: C

Copyright 1998, IEE

**Title:** Data embedding algorithms for geometrical and non-geometrical targets in three-dimensional polygonal models

**Abstract:** Three-dimensional (3D) graphics is about to become a

full-fledged multimedia data type, prompted by the increasing popularity...

... modeling language (VRML) and imminent standardization of MPEG-4. The paper presents several algorithms for **embedding** data in triangular meshes, arguably the most important component in both VRML and MPEG-4 in defining arbitrary shapes. A **topology** -modifying algorithm described in the paper **embeds** bit string in connectivity of triangles, while another algorithm cuts out patterns from a mesh. Yet another algorithm modifies texture coordinate, a non-geometrical quantity, for **embedding**. Watermarks **embedded** in 3D **graphics** contents could be used as a tool in managing intellectual property and other issues associated...

Descriptors: computer **graphics** ;

Identifiers: data **embedding** algorithms...

...three-dimensional **graphics** ; ...

...3D **graphics** ; ...

... **topology** -modifying algorithm...

... digital **watermarks** ;

40/3,K/4 (Item 4 from file: 2)

DIALOG(R) File 2:INSPEC

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4957994 INSPEC Abstract Number: B9507-6140C-146, C9507-1250-104

**Title: Parallelization methods for digital image processing algorithms**

Author(s): Burkhardt, H.; Nolle, M.; Schreiber, G.

Author Affiliation: Tech. Univ. Hamburg-Harburg, Germany

Journal: IT+TI Informationstechnik und Technische Informatik vol.37,  
no.2 p.29-36

Publication Date: April 1995 Country of Publication: West Germany

CODEN: ITINEY ISSN: 0944-2774

Language: German

Subfile: B C

Copyright 1995, IEE

**Title: Parallelization methods for digital image processing algorithms**

Abstract: We present concepts for the development of efficient parallel algorithms for application area of **digital image** processing and **pattern** recognition. From an analysis of the data dependencies we introduce classes of **topological** equivalent algorithms. In particular, one of these classes contains algorithms having local nearest neighbor data ...

... be classified as global. The implementation on an MIMD system promises high efficiency when the **topology** of the underlying interconnecting network matches the algorithmic demands. Various homogeneous and heterogeneous **embeddings** are required in order to attach a universal applicability to this concept and to achieve...

Descriptors: **image** processing...

...Identifiers: digital **image** processing algorithms...

... **topological** equivalent algorithms

40/3,K/5 (Item 1 from file: 8)

DIALOG(R) File 8:Ei Compendex(R)

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05952673 E.I. No: EIP01496756540

**Title: Watermarking 3D geometric models through triangle subdivision**

Author: Mao, X.; Shiba, M.; Imamiya, A.

Corporate Source: Dept. of Comp. and Media Engineering Yamanashi University, Yamanashi, Japan

Conference Title: Security and Watermarking of Multimedia Contents III

Conference Location: San Jose, CA, United States Conference Date: 20010122-20010125

E.I. Conference No.: 58754

Source: Proceedings of SPIE - The International Society for Optical Engineering v 4314 2001. p 253-260

Publication Year: 2001

CODEN: PSISDG ISSN: 0277-786X

Language: English

**Abstract:** Digital water marking , the technique for hiding information into multimedia contents, is attracting large attentions in the recent...

...for 3D geometric models. The new algorithm retriangulates a part of a triangle mesh and **embeds** the watermark into the positions of the newly added vertices. Up to 8 bytes data can be invisibly **embedded** into an edge of the triangle mesh without causing any changes to the geometry of the original 3D model. The **embedded** watermark resists affine transformation and can be extracted only from the stego-model without using ...

**Descriptors:** Digital watermarking ; Algorithms; Security of data; Multimedia systems; Computer simulation; Three dimensional; Computational geometry; Feature extraction; **Topology**

**Identifiers:** Three dimensional geometric models; Copyright protection; **Graphics** content

40/3,K/6 (Item 2 from file: 8)

DIALOG(R)File 8: Ei Compendex(R)

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05860548 E.I. No: EIP01296584837

**Title: Robust mesh watermarking based on multiresolution processing**

Author: Yin, K.; Pan, Z.; Shi, J.; Zhang, D.

Corporate Source: Department of Computing Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

Source: Computers and Graphics (Pergamon) v 25 n 3 June 2001. p 409-420

Publication Year: 2001

CODEN: COGRD2 ISSN: 0097-8493

Language: English

...Abstract: propose a new mesh watermarking scheme for triangle meshes, which are widely used in computer **graphics** systems. Arbitrary meshes lack a natural parameterization for frequency-based signal processing, and thus they...

...operator to construct a Burt-Adelson pyramid for the mesh, and then watermark information is **embedded** into a suitable coarser mesh. Since all the computation and data structures are the same...

...are needed to bring the attacked mesh model back into its original location, orientation, scale, **topology** and resolution level.



Experimental results and attack analysis are given to show that our watermarking...

Descriptors: Three dimensional computer **graphics** ; **Digital watermarking** ; Cryptography; Data structures; Algorithms; **Image** analysis

**40/3,K/7** (Item 3 from file: 8)  
DIALOG(R)File 8: Ei Compendex(R)  
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05027071 E.I. No: EIP98064237998

**Title: Watermarking three-dimensional polygonal models through geometric and topological modifications**

Author: Ohbuchi, Ryutarou; Masuda, Hiroshi; Aono, Masaki  
Corporate Source: IBM Tokyo Research Lab, Kanagawa, Jpn  
Source: IEEE Journal on Selected Areas in Communications v 16 n 4 May 1998. p 551-560  
Publication Year: 1998  
CODEN: ISACEM ISSN: 0733-8716  
Language: English

**Title: Watermarking three-dimensional polygonal models through geometric and topological modifications**

Abstract: This paper discusses techniques for **embedding** data into three-dimensional (3-D) polygonal models of geometry. Given objects consisting of points...

...polygons, or curved surfaces, the algorithms described in this paper produce polygonal models with data **embedded** into either their vertex coordinates, their vertex **topology** (connectivity), or both. Such data **embedding** can be used, for example, for copyright notification, copyright protection, theft deterrence, and inventory of...

...is followed by a discussion of where, and by what fundamental methods, data can be **embedded** into 3-D polygonal models. The paper then presents several data- **embedding** algorithms, with examples, based on these fundamental methods. By means of these algorithms and examples, we show that the **embedding** of data into 3-D polygonal models is a practicable technique. (Author abstract) 15 Refs.

Descriptors: Imaging techniques; Three dimensional computer **graphics** ; Mathematical models; Computational geometry; **Topology** ; Algorithms; Data recording; Copyrights

Identifiers: Three dimensional polygonal models; Data **embedding** ; Data hiding; **Digital watermarking** ; Steganography

**40/3,K/8** (Item 1 from file: 34)  
DIALOG(R)File 34: SciSearch(R) Cited Ref Sci  
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03150587 Genuine Article#: NH660 No. References: 7

**Title: DIGITAL ENHANCEMENT AS AN AID TO DETECTING PATTERNS OF VEGETATION STRESS USING MEDIUM-SCALE AERIAL- PHOTOGRAPHY**

Author(s): JACKSON PL; GASTON GG  
Corporate Source: OREGON STATE UNIV, DEPT GEOSCI/CORVALLIS//OR/97331  
Journal: INTERNATIONAL JOURNAL OF REMOTE SENSING, 1994, V15, N5 (MAR 20), P 1009-1018  
ISSN: 0143-1161  
Language: ENGLISH Document Type: NOTE (Abstract Available)

**Title: DIGITAL ENHANCEMENT AS AN AID TO DETECTING PATTERNS OF VEGETATION  
STRESS USING MEDIUM-SCALE AERIAL- PHOTOGRAPHY**

**Abstract:** The application of **image** processing algorithms, originally developed for satellite **image** analysis, has been shown to improve pattern recognition of environmental change and vegetation stress with medium-scale aerial **photography**. **Image** enhancement helps to identify subtle features and spatial **patterns embedded** in a **digitized** air **photo** transparency that might otherwise escape visual identification. Our procedure combines visual interpretation with computer-aided **image** enhancement, including Normalized Difference Vegetation Index (NDVI) and supervised and unsupervised classification. The motivation for...

...generation facilities. The procedure involves simple, on-call, acquisition of colour infrared and colour aerial **photography** that can be electronically enhanced and evaluated, resulting in accurate, timely, and cost-efficient information on vegetation changes related to **land** management, weather, diseases, insects, or other environmental stressors.

40/3,K/9 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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04594304 JICST ACCESSION NUMBER: 00A0339136 FILE SEGMENT: JICST-E  
**New Advances in Graphics and Visual Contents Creation. A Shape-preserving  
Data Embedding Algorithm for NURBS Curves and Surfaces.**

OBUCHI RYUTARO (1); MASUDA HIROSHI (2); AONO MASAKI (3)

(1) Yamanashi Univ., Fac. of Eng.; (2) Univ. Tokyo, Res. into Artifacts,  
Center for Engineering, JPN; (3) IBM Japan, Ltd.

Joho Shori Gakkai Ronbunshi(Transactions of Information Processing Society  
of Japan), 2000, VOL.41,NO.3, PAGE.559-569, FIG.5, REF.18

JOURNAL NUMBER: Z0778AAZ ISSN NO: 0387-5806

UNIVERSAL DECIMAL CLASSIFICATION: 681.3:621.397.3 681.3:658.51  
681.3.02-759

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Original paper

MEDIA TYPE: Printed Publication

**New Advances in Graphics and Visual Contents Creation. A Shape-preserving  
Data Embedding Algorithm for NURBS Curves and Surfaces.**

**ABSTRACT:** **Digital watermarking** adds various information to digital  
contents for copyright management and other applications. 3D model has

...  
...their main shape-defining primitives. Second, most CAD applications do  
not tolerate modifications of model **topology** and/or geometry that are  
introduced by existing watermarking algorithms. This paper proposes a  
new...

...non-uniform rational B-spline (NURBS) curves and surfaces, which employs  
rational linear reparameterization for **embedding** messages. The  
algorithm exactly preserves the shape, -that is, the geometry and  
**topology** - of its watermarking targets. Furthermore, it preserves the  
data size of the model. We consider...

...various applications of CAD models. In addition to the shape- and data  
size-preserving data **embedding** algorithm for NURBS curves and  
surfaces, this paper outlines additional methods for **embedding** data

in various types of parametric curves and surfaces. (author abst.)  
DESCRIPTORS: computer **graphics** ; ...

... **image** processing

BROADER DESCRIPTORS: **image** technology...

?

File 9:Business & Industry(R) Jul/1994-2003/Jul 03  
(c) 2003 Resp. DB Svcs.  
File 15:ABI/Inform(R) 1971-2003/Jul 05  
(c) 2003 ProQuest Info&Learning  
File 16:Gale Group PROMT(R) 1990-2003/Jul 03  
(c) 2003 The Gale Group  
File 20:Dialog Global Reporter 1997-2003/Jul 07  
(c) 2003 The Dialog Corp.  
File 47:Gale Group Magazine DB(TM) 1959-2003/Jun 27  
(c) 2003 The Gale group  
File 75:TGG Management Contents(R) 86-2003/Jun W4  
(c) 2003 The Gale Group  
File 80:TGG Aerospace/Def.Mkts(R) 1986-2003/Jul 02  
(c) 2003 The Gale Group  
File 88:Gale Group Business A.R.T.S. 1976-2003/Jun 30  
(c) 2003 The Gale Group  
File 98:General Sci Abs/Full-Text: 1984-2003/May  
(c) 2003 The HW Wilson Co.  
File 112:UBM Industry News 1998-2003/Jul 04  
(c) 2003 United Business Media  
File 141:Readers Guide 1983-2003/May  
(c) 2003 The HW Wilson Co  
File 148:Gale Group Trade & Industry DB 1976-2003/Jul 01  
(c)2003 The Gale Group  
File 160:Gale Group PROMT(R) 1972-1989  
(c) 1999 The Gale Group  
File 275:Gale Group Computer DB(TM) 1983-2003/Jul 02  
(c) 2003 The Gale Group  
File 264:DIALOG Defense Newsletters 1989-2003/Jul 03  
(c) 2003 The Dialog Corp.  
File 484:Periodical Abs Plustext 1986-2003/Jun W5  
(c) 2003 ProQuest  
File 553:Wilson Bus. Abs. FullText 1982-2003/May  
(c) 2003 The HW Wilson Co.  
File 570:Gale Group MARS(R) 1984-2003/Jul 02  
(c) 2003 The Gale Group  
File 608:KR/T Bus.News. 1992-2003/Jul 07  
(c)2003 Knight Ridder/Tribune Bus News  
File 610:Business Wire 1999-2003/Jul 07  
(c) 2003 Business Wire.  
File 613:PR Newswire 1999-2003/Jul 07  
(c) 2003 PR Newswire Association Inc  
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Jul 01  
(c) 2003 The Gale Group  
File 623:Business Week 1985-2003/Jul 04  
(c) 2003 The McGraw-Hill Companies Inc  
File 624:McGraw-Hill Publications 1985-2003/Jul 04  
(c) 2003 McGraw-Hill Co. Inc  
File 634:San Jose Mercury Jun 1985-2003/Jul 05  
(c) 2003 San Jose Mercury News  
File 635:Business Dateline(R) 1985-2003/Jul 04  
(c) 2003 ProQuest Info&Learning  
File 636:Gale Group Newsletter DB(TM) 1987-2003/Jul 02  
(c) 2003 The Gale Group  
File 647:CMP Computer Fulltext 1988-2003/Jun W2  
(c) 2003 CMP Media, LLC  
File 696:DIALOG Telecom. Newsletters 1995-2003/Jul 07  
(c) 2003 The Dialog Corp.  
File 674:Computer News Fulltext 1989-2003/Jun W5  
(c) 2003 IDG Communications  
File 810:Business Wire 1986-1999/Feb 28

(c) 1999 Business Wire  
 File 813:PR Newswire 1987-1999/Apr 30  
 (c) 1999 PR Newswire Association Inc  
 ? ds

Set	Items	Description
S1	7196	SPOT(3N)SATELLITE?
S2	3265950	TERRAIN OR LAND OR LANDSCAPE OR TOPO? OR USGS OR US()GEOLOGICAL()SURVEY
S3	9073049	IMAGE? OR PICTURE? OR GRAPHIC? OR PHOTO?? OR PHOTOGRAPH??
S4	3134	PHOTOGRAMMETRY
S5	10746	S2(3N)MAPS
S6	195797	(EACH OR INDIVIDUAL?)(3N)(LINK? OR WEB()PAGE? OR S3)
S7	32656	(DIGIT? OR ELECTRONIC?)(3N)(WATERMARK? OR WATER()MARK? OR - MARKER? OR MARKING? OR SYMBOL? OR STENCIL? OR PATTERN? OR FINGERPRINT? OR IDENTIFIER?)
S8	3	GRP()INCP?
S9	433	MICROSOFT(10N)TERRASERVER
S10	1192	S7(5N)EMBED?
S11	0	S10(7N)HEADER??
S12	70	STEGANOGRAPH?(7N)S3(10N)(INTERNET OR WWW OR WORLD()WIDE()WEB OR BROWSER)
S13	3	RD S8 (unique items)
S14	1	RHOADS(S)GRP
S15	0	S9(S)S10
S16	55	(S1 OR S2)(S)S3(S)S7
S17	18	S16(S)(INTERNET OR WWW OR WORLD()WIDE()WEB OR BROWSER)
S18	17	RD S17 (unique items)
S19	1	S18 NOT (LAND()ROVER OR WWW)
S20	2	S5(10N)S7
S21	1	RD S20 (unique items)
S22	0	S12(S)S2
S23	0	S12(S)S1
S24	5	S12(S)COPYRIGHT?
S25	5	S24 NOT S16
S26	3	RD S25 (unique items)
S27	7	S12(S)(ZOOM OR ENLARG? OR LINK?)
S28	4	RD S27 (unique items)
S29	48	BLUE()SPIKE(S)S7
S30	0	S29(S)LINK??(S)S3
S31	17	S29(S)S3
S32	1	S31(S)S2
S33	0	S9(S)S7
S34	9	S2(3N)S3(S)S7
S35	3	S34(S)(PART OR PARTS OR PORTIONS OR SECTIONS OR PIECES OR - LINK? OR METADATA OR HTML OR HEADER??)
S36	2	RD S35 (unique items)
S37	0	S36 NOT (S13 OR S17 OR S20 OR S24 OR S27)

13/3,K/1 (Item 1 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
(c) 2003 The Gale Group. All rts. reserv.

04657718 Supplier Number: 46853490  
**A furnace relining project uses a high zirconia fused cast refractory.**  
Wrap, Glenn  
American Glass Review, p12  
Nov 1, 1996  
Language: English Record Type: Abstract  
Document Type: Magazine/Journal; Trade  
  
COMPANY NAMES: GRP Incorporated

13/3,K/2 (Item 2 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
(c) 2003 The Gale Group. All rts. reserv.

02588189 Supplier Number: 43437643 (USE FORMAT 7 FOR FULLTEXT)  
**Is Toyota looking for land?**  
Crain's Detroit Business, p1  
Nov 8, 1992  
Language: English Record Type: Fulltext  
Document Type: Magazine/Journal; Trade  
Word Count: 903

... Williams, a GRP executive, declined to describe the project. He also declined to say whether **GRP**, **incorporated** in January, was the entity planning the project or simply an agent.  
'As far as...

13/3,K/3 (Item 1 from file: 635)  
DIALOG(R)File 635:Business Dateline(R)  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

0340782 92-88274  
**Is Toyota Looking for Land?**  
Child, Charles; Chappell, Lindsay  
Crains Detroit Business (Detroit, MI, US), V8 N44 s1 p1  
PUBL DATE: 921102  
WORD COUNT: 867  
DATELINE: Ann Arbor, MI, US

TEXT:

...Williams, a GRP executive, declined to describe the project. He also declined to say whether **GRP**, **incorporated** in January, was the entity planning the project or simply an agent.

"As far as...  
?

14/3,K/1 (Item 1 from file: 635)  
DIALOG(R)File 635:Business Dateline(R)  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

2314082 160653851

**Digimarc execs hold stake in California firm**

Earnshaw, Aliza

Business Journal v19n26 p4

Aug 30, 2002

WORD COUNT: 559

DATELINE: Portland Oregon

TEXT:

The statement in the proxy reveals that three of Digimarc's top executive officers in **GRP** Inc. own more than 40 percent of the company between them. The shareholders are CEO...

...board chairman Bruce Davis, CFO E.K. Ranjit and Chief Technical Officer and founder Geoff **Rhoads**. **Rhoads** is also a director and executive officer of **GRP**. The document doesn't say whether Digimarc itself owns any **GRP** shares.

Responding to several requests for information about **GRP**, the opportunity it represents to Digimarc...  
...synergies to serve on one another's boards.

The statement in Digimarc's proxy that **Rhoads** is an "executive officer" of **GRP** does not really convey enough information to judge how actively he is involved with **GRP**, said Lidberg. However, too much focus on **GRP** might not be in the best interest of Digimarc's investors. "I want to see...  
?

19/3,K/1 (Item 1 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
(c) 2003 The Dialog Corp. All rts. reserv.

12560134

**Blue Spike Leads Digital Watermarking Tech**

KOREA TIMES

August 17, 2000

JOURNAL CODE: WKOR LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 981

... technology that could gate the release of music and films for next-generation DVD and **Internet** consumer-electronics systems. Digital watermarking is an attempt to hide information within an audio signal...

... is the first and only product to use secret keys to lock secret data into **image** and sound signals. Our patents bear out our leadership in the field. Our philosophy is...

...focusing on protecting copyrights for different kinds of media. Digimarc is focused primarily on watermarking **images** and documents. Signum Technologies (UK), as well, is focused primarily on **images**, though moreso in industrial applications such as document imaging and cartography. In the U.S...

...with dozens on file for further digital watermarking applications. Q: In today's tech industrial **landscape** stiff competition and ever shortened life cycle of a product are pointed as biggest hurdles...

... nature, a product like that is less subject to fashion and rapid market shifts. The **Internet** Protocol is the same today as it was 10 years ago. Dolby Noise reduction is...

... can be copied easily for most of a decade. Secondly, is our principals' experience in **Internet** commerce, in the media industry and in the discipline signals processing. Thirdly, Blue Spike has developed and deployed the most extensive range of **digital watermarking** systems in the world...

...for media from **images** to sound. In the sound arena, we are considered the most lightweight (requires lowest computational...fight counterfeiting and gray market sales. Tomorrow, digital media companies will use Blue Spike's **digital watermarking** to identify their assets on the **Internet** and trace them to fulfillment houses, distribution partners or consumers that have overstepped their licensing...

?



21/3,K/1 (Item 1 from file: 47)  
DIALOG(R)File 47:Gale Group Magazine DB(TM)  
(c) 2003 The Gale group. All rts. reserv.

02743337 SUPPLIER NUMBER: 03956514 (USE FORMAT 7 OR 9 FOR FULL TEXT)  
**Pushing the state of the art; large, national research projects seem to be  
the name of the game in computing these days.**

Datamation, v31, p68(8)

Oct 1, 1985

CODEN: DTMNA LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 7796 LINE COUNT: 00633

... a few fields where Norway is believed to be ahead of other nations.  
One is **pattern** recognition and the **digital** construction of **maps** :  
Norway's unique **topography** has made this field a natural area of research  
for the last 10 years. Private...  
?

26/3,K/1 (Item 1 from file: 15)  
DIALOG(R)File 15:ABI/Inform(R)  
(c) 2003 ProQuest Info&Learning. All rts. reserv.

01565544 02-16533

**The costs of confusion in cyberspace**

Oram, Jon H

Yale Law Journal v107n3 PP: 869-874 Dec 1997

ISSN: 0044-0094 JRNL CODE: YLJ

WORD COUNT: 3708

...TEXT: More recently, Web site operators have begun to embed identifying information in nontextual works-particularly **images** and sounds-to allow them to track **copyright** violations across the **Internet**. This process is known as **steganography**. See Trotter Hardy, Property (and **Copyright**) in Cyberspace, 1996 U. CHI. LEGAL F. 217, 248. 36. See Nathenson, supra note 24...

26/3,K/2 (Item 1 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
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20788650 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Technique Aims to Protect, Possibly Improve Internet Video**

ASCRIBE

January 16, 2002

JOURNAL CODE: WASC LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 789

...technique that will make it practical to use "digital watermarking" for video sent over the **Internet**, providing a reliable way to protect **copyrights** and to verify a video's authenticity.

Digital watermarking, or steganography, is a procedure in which hidden patterns are embedded into an image or document on the **World Wide Web**. The patterns can then be used to verify the image as authentic, protecting intellectual property...

26/3,K/3 (Item 2 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
(c) 2003 The Dialog Corp. All rts. reserv.

19414199 (USE FORMAT 7 OR 9 FOR FULLTEXT)

**Is the writing on the (virtual) wall?**

CANBERRA TIMES, CT ed, p16

October 22, 2001

JOURNAL CODE: WCTS LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 1271

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... SpamMimic encodes messages into what looks just like a typical, quickly deleted spam message (see [www.spammimic.com](http://www.spammimic.com)).

On the positive and useful side **steganography** has its strengths in **copyright** protection and in tamper-proofing data. **Images** interwoven with code continue to protect the data from illegal copying.

In some forms of...

?

28/3,K/1 (Item 1 from file: 16)  
DIALOG(R)File 16:Gale Group PROMT(R)  
(c) 2003 The Gale Group. All rts. reserv.

09268231 Supplier Number: 80664752 (USE FORMAT 7 FOR FULLTEXT)  
**Newsweek Periscope Item: Al Qaeda Warning From a Web Site.**  
PR Newswire, pNYSU00209122001  
Dec 9, 2001  
Language: English Record Type: Fulltext  
Document Type: Newswire; Trade  
Word Count: 369

... collaborate with spy or police agencies hunting terrorists. Readers are urged to click on a **link** to an Azzam speech titled "Martyrs: The Building Blocks of Nations." Also posted: an open...

...Kenya. British and U.S. intelligence sources suspect some of the site's lurid jihad **photos** and **graphics** contain secret messages embedded through a technology called **steganography**, for which free software can be downloaded from the **Internet**. Some of the coding is so sophisticated, sources say, that intelligence agencies have found such...

28/3,K/2 (Item 1 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
(c) 2003 The Dialog Corp. All rts. reserv.

19318522 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**Computimes: E-commerce disappoints banks**  
IRISH TIMES, p8  
October 15, 2001  
JOURNAL CODE: FIRT LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 1170

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... 11th. The company has been using sophisticated software to search the Net for so-called **steganography**, the system of hiding messages inside electronic **images** and music files. The system of encrypting text on the **Internet** is thought to be used by bin Laden and his associates as a means of...

28/3,K/3 (Item 2 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
(c) 2003 The Dialog Corp. All rts. reserv.

19258099 (USE FORMAT 7 OR 9 FOR FULLTEXT)  
**Messages 'buried on videos'**  
BIRMINGHAM POST  
October 11, 2001  
JOURNAL CODE: FBMP LANGUAGE: English RECORD TYPE: FULLTEXT  
WORD COUNT: 204

(USE FORMAT 7 OR 9 FOR FULLTEXT)

... Glasgow-based Iomart has been helping US investigators by using sophisticated software to search the **Internet** for so-called **steganography**, the system of hiding messages inside electronic **images** and music files.

The system of encrypting text on the **Internet** is thought to be used by bin Laden and his associates as a means of...

28/3,K/4 (Item 1 from file: 647)  
DIALOG(R)File 647:CMP Computer Fulltext  
(c) 2003 CMP Media, LLC. All rts. reserv.

01091089 CMP ACCESSION NUMBER: NTG19960601S0055  
**Computerware**  
NETGUIDE, 1996, n 306, PG99  
PUBLICATION DATE: 960601  
JOURNAL CODE: NTG LANGUAGE: English  
RECORD TYPE: Fulltext  
SECTION HEADING: CYBERGUIDE: Your GUIDE to the NET  
WORD COUNT: 340

... online.  
World Wide Web: <http://www.adgrafx.com/cgi-bin/htmlfm.pl>  
\*\*\*  
Crypto-Log: The **Internet** Guide  
to Cryptography  
Lock up your digital diary with hundreds of practical **links** to  
crypto-technology, including voice encryption and **steganography** ( hiding  
text files in **image** and sound files)  
**World Wide Web** : [http:// www .enter.net/~chronos/cryptolog.html](http://www.enter.net/~chronos/cryptolog.html)  
\*\*\*  
Computer Almanac-Interesting and Useful Numbers About Computers  
Crunch! Factor...  
?

32/3,K/1 (Item 1 from file: 20)  
DIALOG(R)File 20:Dialog Global Reporter  
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12560134

**Blue Spike Leads Digital Watermarking Tech**

KOREA TIMES

August 17, 2000

JOURNAL CODE: WKOR LANGUAGE: English RECORD TYPE: FULLTEXT

WORD COUNT: 981

... with dozens on file for further digital watermarking applications.  
Q: In today's tech industrial **landscape** stiff competition and ever shortened life cycle of a product are pointed as biggest hurdles...

... hold true with your firm? A: Not really. I understand what you are saying, but **Blue Spike** is the developer of digital infrastructure products. That shortened life-cycle phenomena is more applicable...

... years ago. Dolby Noise reduction is not greatly changed over the last decade either. What **Blue Spike** provides does not require rapid adaption to changing conditions because of the level our products...

... experience in Internet commerce, in the media industry and in the discipline signals processing. Thirdly, **Blue Spike** has developed and deployed the most extensive range of **digital watermarking** systems in the world...

...for media from **images** to sound. In the sound arena, we are considered the most lightweight (requires lowest computational burden to run) and, for all music, totally inaudible. As well, **Blue Spike** has the largest patent portfolio in the field by a very wide margin, something that...mark clothese to fight counterfeiting and gray market sales. Tomorrow, digital media companies will use **Blue Spike's digital watermarking** to identify their assets on the Internet and trace them to fulfillment houses, distribution partners...

?